

University News

A WEEKLY JOURNAL OF HIGHER EDUCATION

Vol 38 No 14

APRIL 3, 2000

Rs 9.00

V. GOVINDARAJU

Institution-Industry Collaboration

R. VENKAN

New Dimensions in the Management of Academic Libraries

VANDANA GUPTA & D.N. SANSANWAL

Self-Concept Enhancement Programme —Reaction of Participants

A. GNANAM

Role of Universities in the Changing Context

UNIVERSITIES AND ADULT EDUCATION

AGRI BUSINESS MANAGEMENT COURSE

LIBRARIES AND INFORMATION CENTRES IN THE 21ST CENTURY



Association of Indian Universities



POSTGRADUATE INSTITUTE OF MEDICAL EDUCATION & RESEARCH, CHANDIGARH

ADMISSION NOTICE NO. 55/2000 (ACAD.)

LAST DATE FOR RECEIPT OF APPLICATION FORMS : 25.4.2000 AT 4.00 P.M.

Applications on the prescribed form are invited for the following postdoctoral, postgraduate courses and Ph.D. programme for the academic session starting from 1st July, 2000. *Incomplete applications will not be entertained and no correspondence will be made in this regard.*

I. FIRST YEAR JUNIOR RESIDENTS (for MD/MS courses)

Anaesthesia (Gen-6, SC-2, ST-1, Spon-2, FN-1), Community Medicine (Gen-2, SC-1, Spon-1), Dermatology, Ven & Leprology (Gen-1, Spon-1, FN-1), ENT (Gen-2, ST-1), Medicine (Gen-5, SC-1, Spon-2, FN-1), Obstetrics & Gynaecology (Gen-3, SC-1, RA-1, Spon-2, FN-1), Ophthalmology (Gen-3, ST-1, Spon-1, FN-1), Ortho Surgery (Gen-2), Pediatrics (Gen-5, ST-1, Spon-2, FN-1), Psychiatry (Gen-3, SC-1, RA-1, Spon-1), Radio-diagnosis (Gen-3, Spon-1), Radiotherapy (Gen-2, SC-1), Surgery (Gen-8, SC-2, ST-1, Spon-2, FN-2), Transfusion Medicine (Gen-2), Medical Microbiology (Gen-2, SC-1, Spon-1, FN-1), Pathology (Gen-3, SC-1, RA-1, Spon-2, FN-1), Pharmacology (Gen-3, SC-1, ST-1, Spon-1)

II. MDS (Pedodontia & Preventive Dentistry (Gen-2). Orthodontics (Gen-2)

III. FIRST YEAR JUNIOR RESIDENTS (HOUSE JOB) FOR ORAL HEALTH SCIENCES (Gen-6, SC-1)

IV. DM/M.Ch.

Cardiology (Gen-1), Clinical Pharmacology (Gen-1, Spon-2), Endocrinology (Gen-1, Spon-1), Gastroenterology (Gen-2, Spon-2), Nephrology (Gen-1), Neurology (Gen-1, Spon-1), Neonatology (Gen-1), Pulmonary & Critical Care Medicine (Gen-1, Spon-1) CVTS (Gen-2, Spon-1) Neurosurgery (Gen-2, Spon-1), Plastic Surgery (Gen-1, Spon-1), Urology (Gen-1)

V. Ph.D. PROGRAMME

Anatomy, Biochemistry, Biophysics, Comm. Medicine, Dermatology, Endocrinology, Experimental Medicine & Biotechnology, E.N.T., Gastroenterology, Hepatology, Histopathology, Immunopathology, Haematology, Medical Microbiology, Pediatrics, Pharmacology, Parasitology, Psychiatry, Virology, Obst. & Gynaecology, Pul. & Critical Care Medicine

VI. M.Sc. Biochemistry (Gen-3, SC-1, ST-1)

M.Sc. Biotechnology (Gen-4, SC-1)

M.Sc. Pharmacology (Gen-1)

VII. M.Sc. Speech & Hearing (Open-1, Spon-2)

VIII. M.Sc. Medical Technology (Microbiology) with Bacteriology & Mycology-2, Parasitology-2, Virology-2 as special subject

IX. M.Sc. Medical Technology (Pharmacology & Physiology-1)

X. M.Sc. Medical Technology (Radiology) with Radiodiagnosis-1 and Radiotherapy-1 as special subject.

XI. M.Sc. Medical Technology (Pathology) with Immunopathology-1, Histopathology-1, Cytology-2 as special subject.

XII. M.Sc. Medical Technology Biochemistry-2

GENERAL INFORMATION

1. For all courses, where MBBS/BDS is an eligible requirement, the candidates who have made more than one attempt (i.e. have more than one failure, compartment or reappear) during their MBBS/BDS course, are not eligible. For DM/M.Ch. courses, the candidates who have made more than one attempt in MBBS or MD/MS career are not eligible. However, those belonging to Sch. Castes/Tribes with upto two attempts in their MBBS/BDS/MD/MS career will be eligible for MD/MS, MDS & House Job in Oral Health Sciences.
2. The number of seats wherever indicated are provisional and are subject to change without any prior notice
3. The courses at Categories VII to XII above are only for Sponsored/Deputed candidates except one Open Seat for M.Sc. Speech & Hearing.
4. A candidate applying for more than one subject/course except category I and II is required to submit separate application complete in all respects for each subject/course.
5. Application forms alongwith prospectus (Brochure of Information) are available from the office of the undersigned either personally on payment of Rs. 300/- at the counter (Kairon Block, Room No. 361) from 10.30 A.M. to 11.30 A.M. and from 2.30 P.M. to 3.30 P.M. on all working days except Saturdays (On Saturdays, form will be available from 10.30 A.M. to 11.30 A.M.) or by post for which the request must be accompanied with a self addressed thick envelope of size (24 x 15 cms) bearing postage stamps of Rs. 12/- and Bank Draft/Postal Orders for Rs. 300/- drawn in favour of the Director of the Institute.

Note :

1. NO APPLICATION WILL BE ENTERTAINED THROUGH COURIER.
2. NO REQUEST FOR THE SUPPLY OF FORM BY POST WILL BE ENTERTAINED AFTER 19.04.2000

Web : <http://pgimer.nic.in>

Email : medinst@pgi.chd.nic.in

D.R. Yadava
REGISTRAR

UNIVERSITY NEWS

VOL. 38 **APRIL 3**
No. 14 **2000**
Price **Rs. 9.00**

**A Weekly Journal of Higher
Education published by the
Association of Indian Universities**

IN THIS ISSUE

Institution-Industry Collaboration	1
New Dimensions in the Management of Academic Libraries	4
Self-Concept Enhancement Programme — Reaction of Participants	10
Role of Universities in the Changing Context	12
Campus News	
Universities and Adult Education	17
Seminar on Indicators of Quality Education	18
Internet related training Programme	19
AIIMS and NY Varsity Tie Up	21
Agriculture	
Agri Business Management Course	23
News from UGC	
Countrywide Classroom Programme	24
Book Review	25
Theses of the Month	29
Classified Advertisements	32

**Opinions expressed in the articles
are those of the contributors and do
not necessarily reflect the policies of
the Association.**

Editorial Committee :

Prof. K.B. Powar
Prof. B.B. Dhar
Mr. Sutinder Singh

Editor :
SUTINDER SINGH

Institution-Industry Collaboration

V. Govindaraju*

Linkage with business and industry by the management institutes will go a long way in improving the quality of Management Education and making it purposeful.

Industry should rely upon the products of management institutes, as the source of new personnel and new ideas and no industry can be successful for long without continuous injection of new talents from these institutes. Management institutes also need to have a close association and knowledge of the problems of business and industry as a source of new ideas and direction and no management institute can ever be successful without an intimate association with Industry.

There is at present a divergence of interest and philosophy between the two, and their relationship has not blossomed into a full-fledged partnership wherein they share all the risks and profits as in a business enterprise. Mutual distrust, non-appreciation of each other's role, indifference and sociological background have also contributed to this state of affairs.

Interaction

In any discussion on Industry-Institution Collaboration, the following points deserve consideration :

- ◆ Government and other charitable institutions spend a lot of money on management education. It should be well spent.
- ◆ Business and industry often complain about the dearth of properly qualified and skilled personnel, while educational institutions roll out every year a large number.
- ◆ Academics groan about the non-cooperative and critical attitude and low receptivity to professionalism on the part of business and industry.
- ◆ Orientation that the youngsters receive in their formative years in management institutes will have a lasting effect. Hence the need to provide the right type of inputs.
- ◆ Industry also spends a lot in running their own training colleges and training programmes.

Instead of trying to hold each other responsible for the present state of affairs, they can join hands in identifying the various areas of collaboration and interaction between them which are mutually beneficial and which will ultimately contribute to the quality of the personnel trained by the management institutes.

Areas for Collaboration

The areas in which industry can collaborate with the management institutes are :

i) Curriculum Development/Continuing Education

Industries can continuously assist in the formulation of courses and curricula by

*Assistant Professor, Management Sciences Department, PSG College of Technology, Coimbatore-641 004.

- a) associating with management education authorities at national, state and unit levels and in governing bodies, academic councils etc;
- b) specifying the skills and competencies they want in their employees, which is the basis for curriculum design and revision;
- c) pointing out deficiencies, their management trainees may have had — to enable institutes to strengthen their programmes;
- d) keeping informed about the changes in skills requirements, trends in occupations etc, to keep the institutional curriculum contemporary and relevant — (Industry is alert to the changing skills that are needed in today's market and is driven by the need to find young people who are employable. Educators on the other hand, cannot possibly be expected to keep up with industry's changing needs).
- e) Spelling out clearly their plans for future development so that appropriate educational programmes could be designed.
- f) Liaisoning with management institutes with regard to their need for refresher, short term and other specialised courses for providing continuing education to their employees.

ii) Training Facilities

By providing training facilities to the students as an open ended educational programme, creating in them a deep awareness of the wide spectrum of organisational aspects and procedures in industry and the several managerial functions involved such as coordination, decision making, human relations, judgement and selection of techniques for particular situations and so on.

Industry is geared to change. Under competitive drive, it will produce ideas, trainers and, most important, the equipment. It is almost impossible for any educational institution to secure sufficient funds to constantly change equipment as industry does.

iii) Study Materials

In the development of study materials such as books, cases, articles, materials for management games, in basket exercises, role play etc, partnership between industry and management institutes is essential. At present, much of the material available is not suited to the Indian context.

iv) Action Learning

Management education is basically a professional job-oriented education. We seem to have over-

looked this fact and hence there is too much emphasis on classroom teaching and stereotyped case study sessions in the sheltered atmosphere of the class. After providing basic inputs and some case illustrations, a good part of the learning should be accomplished through specific assignments in business establishments in the form of mini-projects during the semesters, besides the usual summer projects and final dissertations. The counterparts to faculty guides in industry should assist them in supervising the project work of management graduates.

A "Cosmetic" approach to management education will not work for long. As time wears on, the blemishes will start to show through.

v) Visits to Industrial Organizations

Management institutes should arrange visits of their students to various industries so as to provide them with the needed exposure to real life industrial situations.

vi) In-plant Training

Management institutes should in collaboration with industries arrange for in-plant training of their students during vacations. This in-plant training of students should be made a part of the curriculum and properly scheduled and supervised.

In thinking of a design for management education, we should consider placing the student in a variety of environments, such as factories, office buildings, hospitals etc. Let him get his training from specialists "on location", and in a variety of locations. If we are to prepare our would-be manager for a world of change, he must learn what change looks like and how one does change his environment.

vii) Industrial Educational Programmes

The success elements ingrained in the educational programmes of industry are immediate and realistic goals, the reward factor, provision of flexibility for different learning styles, and an attempt to individualise teaching. Management institutes can take a look at their curricula with a view to adopting as part of the curriculum requirements of management education, some of the programmes developed by industry, thereby vitalising the curriculum and at the same time freeing industry to expend its talents on more specialised training.

viii) Exchange Programmes

Industrial executives could come over to the teaching profession for about two or three years and the Management faculty could go to industry for the

same period. Of course, there are severe limitations to the realisation of this ideal. This exchange can only take place where the industry and the concerned management institute have already established a very close rapport of the highest order and the industry is further willing to forego the services of its trained senior executives for a limited period, accommodating in lieu management teachers.

ix) Faculty Consultancy

One way of bridging the difference between the remuneration levels in industry and in teaching institution is by encouraging faculty members to take up paid consultancy work with industries. Apart from the financial attraction, consultancy really enables the faculty members to keep in live touch with practice.

But at present, hardly 10% of management faculty members get worthwhile consultancy assignments. Indian industry is still shy of engaging consultants on even vital issues. The few firms that have consultancy assignments to offer, patronise only the bigger management institutions. Faculty members in smaller institutions have to work energetically to establish contacts, confidence and foothold in industrial consultancy.

There is also a need for greater awareness about the benefit of management consultancy among industrial circles who are not yet in the habit of engaging consultants. The advantage of taking faculty member who can bring to bear a fresh viewpoint on an industrial problem is really significant.

x) Management Research

The potentialities for research in this virgin field of management are great. The challenges are also equally great and if tackled properly, it would prove to be highly rewarding and satisfying.

Industrial establishments could encourage management institutes and its faculty members in taking up basic goal oriented research, by funding their programmes and by providing them managerial problems.

Very often research should be allocated to educational institutions and not to industry because only very large enterprises can mobilize a team fit for interdisciplinary approach.

xi) Entrepreneurship

Promotion of entrepreneurship is important for rapid national progress. In India today, entrepreneurship becomes specially important when our declared national policy is to reduce concentration of economic power. It is in this context, that one may raise the

issue : does our management education promote entrepreneurship or does it prepare only job-hunters? The experience so far shows that the management institutions have developed more competent employees rather than risk-seeking entrepreneurs.

Lack of achievement motivation is characteristic of our culture. The management institutions do not seem to have made a conspicuous dent on this attitude. Industrial leaders can play a major role in nurturing this attitude and in grooming entrepreneurial skills in our youngster.

In brief, Industry and educational institutions could work as the warp and the weft to turn out the 'fabric' viz. competent executive or entrepreneur.

References

1. Shelly Umans, *The Management of Education : A systematic Design for Educational Revolution*, Pitman publishing 1972.
2. T.M. Mosson, *Teaching the Process of Management*, George G. Harrap & Co. Ltd., 1967.
3. Ivor K. Davies, *The Management of Learning*, McGraw Hill, 1971.
4. Robert E. Tannehill, *Motivation and Management Development*, Butterworths, 1970.
5. S.P. Sharma, *Professional Management in India*, Deep & Deep Publications, 1982. □

NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY

HATIA : RANCHI-834003

(Govt. of India Society Under Ministry of HRD)

ADMISSION NOTIFICATION - 2000

Applications are invited from eligible candidates for admission in the following courses:

M.TECH	ELIGIBILITY:	APPLICATION FEE:
-in Foundry-Forge Tech.	Bachelor's degree in Mech./Met./Prodn. Engg. or equivalent & valid GATE score	Rs. 250/- (General) Rs. 100/- (For SC/ST)
-in Manufacturing Engg.	Bachelor's degree in Mech./Met./Manufacturing/Prod./Elect./Aeron./Chemical/Ind. Engg. and valid Gate score.	
-3 semester P.G. Degree Course (Ranchi University)	Sponsored candidates with 55% marks in qualifying exam. above may also be considered (without Gate score) if they possess 2 years experience. Preference will be given to Gate score holder	

APPLICATION FORM & INFORMATION BROCHURE :

Forms and other details may be obtained from the Chairman, Academic Affairs, NIFFT, RANCHI-834003 on payment of requisite fee (indicating name of the course) by crossed Demand Draft drawn on any Nationalised Bank payable to "NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY" at Ranchi, alongwith a self addressed envelope of size 28x16 cm stamped for Rs. 12/- only. The Institute will not be responsible for any postal delay/loss.

LAST DATES : Receipt of completed Application forms ————— June 20th, 2000

New Dimensions in the Management of Academic Libraries

R. Vengan*

Introduction

The academic institutions of today are not the same good old institutions which were acting as mere examining bodies. Their functions are expanded over the years from teaching, examining to technology transfer through research. The university-industry interaction is the order of the day and the activity is being encouraged by all supporting bodies like UGC, state and central governments. In a net result, the academic libraries have also grown along with the institutions to cater to the needs of their users, who normally fall in the categories of faculty, students, research scholars, and staff of the institutions.

The academic libraries and their management are facing a lot of challenges due to the advent and application of Information Technology (IT) for their activities.

The new technologies have made a deep impact on the academic libraries. Now-a-days the emphasis in libraries is shifting from collection to access. The card catalogue has been replaced by OPAC (Open Public Access Catalogue). The integrated library automation system has improved the operation of acquisition, cataloguing, periodical and circulation departments. The trend is the transition from manual to electronic system.¹ This situation clearly provides challenges and opportunities to the academic libraries to cope with, which in turn opens avenues for crystallising several new dimensions for the field of academic library management.

Importance of Information

Information explosion is the order of the day, that is to say the considerable amount of existing recorded information and its exponential growth rate. Why is information important? Collectively the available information is, in fact, the record of the knowledge of humanity. Therefore, to ignore information means running an exponentially increasing risk of the same order of magnitude. Hence, libraries and librarians have great role to play in information transfer and exchange.

Now, more efficient techniques for recording, retrieving and dissemination of information have been

devised with the application of IT. Networking and resource sharing techniques have enhanced the cooperation and sharing of resources among libraries, which is a vital necessity when the libraries are facing financial crunch.

The human beings involved in the information transfer and exchange — librarians and users have had to radically modify their behaviour and habits. The simplistic idea of the librarian as a person with little training, a mere book-keeper, is no longer valid. The profession has become a demanding one requiring quite advanced knowledge in many fields.

In the present situation, several new dimensions are emerging in the library management field. The librarians are required to acquire the needed skills to cope with the emerging demand based situation.

Information Technology Implementation

The potential strength of IT is being exploited for efficient, effective and cost benefit library services. Academic libraries, if not the first, started applying IT gradually for all their activities. While applying IT care must be taken in every step of implementation. Sudden shifting of the old system to a new one by way of applying IT, may prove not only dangerous but is sure to create several problems. Librarians must keep themselves briefed of all matters concerned with application of IT for library activities to counter all problems.

Strict adherence to time schedule, site preparation, selection of hardware and software, fixing priority while implementing the IT application programme etc be carefully attended to. Knowledge about materials, environment, restrictions, standards are important for librarians for effective implementation.

Converting the library records into a machine readable form has to be tackled very carefully. Converting the records of the most recently acquired documents first, then convert the backlog later may be the good solution to satisfy the users. Before start converting the total library collection, a management decision should be arrived on weeding out of some of the old documents. It is a prerequisite to identify the core, important, and usable collection for conversion into machine readable form.

Once the implementation has been done successfully in one section, naturally, there will be implementation as

**University Librarian, Madras University Library (MUL), University of Madras, Chepauk, Chennai-600 005.*

well as force to expand it to other sections. Before doing so, post-implementation evaluation has to be done in order to find out the effectiveness of the system.

Proper education and training is most important in ensuring that the new system is used properly, effectively and with confidence.

The entire staff as well as users need education and training. They may be trained locally or should be deputed to attend the latest training programmes, workshops, conferences, exhibitions etc at national and international level. Thus, for the successful implementation of the system, staff training and the preparation of appropriate checklists, reference manual etc are very important.

The initial training programme is not in itself enough, it should be a part of a continuous process. It will help the library to keep its staff abreast of the latest techniques and to impart training to the new entrants.

What is considered best today may become obsolete tomorrow. This is true in case of IT and its applications. Once the new system has been implemented, provision should be made to monitor, audit and evaluate it for refining the system. Obsolescence in hardware and software has to be managed with upgrading and replacement policy.

Security, back-up and maintenance of the overall system has to be totally looked into for providing efficient library services to users without any disruption.

IT is certain to change the whole structure of the library. It will bring a particular impact on the work pattern of the staff, architecture of the library and above all, the information needs and information seeking behaviour of the users.²

Implementing and managing IT warrants special capabilities for librarians. It is a real challenge for librarians to cope with the new changes.

Networks — Challenges and Problems

Networks and the emerging global villages have implications for libraries in many ways. Librarians and library users need access to information, and no library can collect all that every user will need. The Internet as new channel for locating and retrieving information is of obvious interest, and librarians are educating themselves and training users to search it. In the networked world the role of the library is one of the information provider. Through Internet, anyone, anywhere can search a library's bibliographic records. Extensions of this service include incorporating other type of databases such as indexes, abstracts, full texts, encyclopedic, directory etc. Commercially produced files often require licensing agreements which is one of the important problems to be sorted out by the Librarian

while serving the users. Libraries also provide information in tailored, individualised packages, through reference interviews and SDI. Some libraries accept reference questions through e-mail.

Many of the major challenges to librarians result from the way in which the Internet has grown over the last two decades, from a small US defence departmental network into an amorphous network of networks. Resources can appear or disappear without notice, so considerable efforts must be made in maintaining knowledge of what is there and what is where. Libraries need to be at interconnect with nearly anonymous clients when services are mediated by computer communications. It is not yet clear how best to assist remote users of library resources. The user's puzzled expression or the beeping of a terminal is not evident to the watchful eye at the reference desk. Similarly reference question negotiation and answering will be different, if the interview is conducted by e-mail. Librarians will be responsible for providing information, not just advice on where it is located.

Electronic Publishing

Databases increase in number and size with full-text databases increasing in number nearly ten times as fast as bibliographic databases and several library-related organisations are venturing into electronic document delivery services. Electronic publishing encourages more interactive exchanges among authors and readers.

Over the last two decades libraries have adapted to the provision of reference resources in electronic form. It is less clear how libraries will adjust to leasing rather than owning primary information sources. Licensing agreements, intellectual property rights, and responsibility for archival copies of information sources are issues still to be resolved in the age of electronic publishing.

How will libraries adapt from collecting to accessing (without owning) information sources? Print collections have been developed and maintained as long-term, capital investments. Librarians will need to change their attitudes toward collection development as technological and economical advances encourage access rather than ownership. In future virtual libraries will replace university libraries, which means purchase of access to information, not the source. This trend will generate many questions about the nature and value of libraries.

Collaboratories

Computer Supported Cooperative Work (CSCW) is an emerging area of research and applications. Computers in group decision making and conferencing can support activities by several people on a common project. Libraries can relate to collaboratories as users or as participants. As users, libraries will collect the work of collaborative research.

Libraries have been among the early adopters of electronic discussion for and should be expected to take part in collaboratories. The profession is coping with the needs to master new resources, to anticipate interaction, among sources and services, and to understand basic questions about information needs and information seeking in an electronic, networked environment. Pockets of expertise and experience could be shared in collaborative work spaces, allowing libraries the benefits of interaction with colleagues and mentors.

Library as archive may be involved in deciding what to store and what not to store when collaborative project succeeds (or) fails.

Expert System

Expert system apply knowledge-based techniques from the computer science field of artificial intelligence in seeking solutions to problems in specific domains. Expert systems are created by interviewing human experts in a field, then organising their hunches, rules, and consensual understanding of the field into a knowledge base. This knowledge base is used by the computer system's inference engine as it attempts to solve problems from the field. Applications range from medical diagnosis to oil exploration.

The tedious and mechanical aspects of the circulation and cataloguing system of a library can be effectively handled by expert system.

Librarian's skill in locating and assessing information sources would be essential for building an efficient library expert system. Librarians may also work as knowledge engineers, using skills in reference questioning to interview experts, then analysing rules for decision making to create expert systems.

Libraries are affected in many ways by the introduction of new technologies. First, library collections will be greatly changed by electronic publications and network access to information resources. Secondly, library use and users will be altered as hypermedia and collaboratories change our notions of authorship and reading. Finally, information seeking and information retrieval will change as virtual libraries and expert systems emerge from laboratories into libraries. All these changes will affect how libraries exist and function.

Librarians' skill will be challenged as commercial and government forces become more interested in the dissemination of electronic information.

Electronic Library

Libraries are able to provide many services in electronic form, ranging from bibliographic databases on CD-ROMs running on stand alone computers, to fully

networked abstracts and texts, available locally and worldwide. For users electronic library is a means for achieving speed in access, reducing time to reach the information, gaining shorter storage space to browse, finding simple means of selecting materials and for eliminating the need to visit a library for many information queries. Authors can create electronic texts and distribute them direct. Items are never out on loan or being bound. Electronic library helps libraries in space management, document management by way of avoiding duplication, binding, rectification and maintenance. The electronic library offers massive advantages in searching literature. Electronic texts are bound to appear attractive. All it needs to provide are the organisational and technological structure for accessing collections held elsewhere.

The librarian therefore becomes more of a networking specialist than an acquisition or cataloguing specialist. Librarians have to change their role from just a custodian of buildings, racks, chairs and tables to organisers and maintenance managers of the organisational and technological structure required for the electronic library. Since electronic library will make searching for items quicker and more convenient for the user, there exists a need for librarians to work with publishers to find a new position to advise them on indexing, text organisation useful for the users. On the other hand, librarians have to change their traditional method of user education to suit the current situation.

Many libraries have many components of electronic library such as locally developed databases, acquired foreign databases, with librarians equipping themselves to meet the requirements, but these libraries will not quickly be able to offer fully electronic library services because of political, social and economic constraints.

It is a fact that no technology can replace the existing one overnight. It is so in libraries too. That libraries will have traditional and electronic components in active co-existence with one another to satisfy their traditional as well as changed modern users' needs. Hence, the librarians and their staff need to train themselves and their users in the methods of gaining access to information held in electronic form. If the librarians of academic institutions want to fulfil the needs of library users in the newer environment, they have to force themselves to develop electronic libraries in consultation with academic departments, computing services and the central support services on campus.

Librarian and Management Communication

Librarians do not usually set out to be manipulators of power. They want to provide a service, the value

of which they see as self-evident, and they expect others to be able to see it. This is particularly true of academic librarians. The librarians must develop viable communications with their own management. This contact must be continuous.

Many studies in personnel management have demonstrated that most of the flow of information is downward, with upper management informing lower levels of its decision. Upward communication, in which not only needs but also ideas can be transmitted, is frequently discouraged, because the expression of unfilled needs is not welcomed and the transmittal of ideas is not expected.

Librarians are not called for participation in many group meetings or discussions of institutional interest. In several institutions they were informed of the budget allocation, projects and programmes to be implemented at the library by the management without having discussions with the librarian. This situation puts the librarian in a hard condition while implementing the programmes and providing services to users. Hence, communication must be continuous, and it must concentrate on the development of ideas, plans and programmes as a prelude to some of the discussions like budgetary discussion, which inevitably follow. Management may seek to evade but cannot really refuse such approaches. Indeed, the librarian can take a more directly confrontational approach, pointing out to immediate authorities that it is their job to help subordinates, and their duties include not only monitoring performance, but also assisting with planning and supporting initiatives when they are perceived to be correct. If they are incorrect, the librarian has the right to be told what is wrong with them.

Sometimes confrontational approach will not yield results. In such situations, professional approach is better or mutual understanding will certainly solve the problems. The management should uphold the professional ethics. There are, of course situations in which resources and support for the library will decline through no fault of the librarian or the immediate authorities. This usually occurs when the larger institution has failed to achieve its own targeted objectives. Librarians must understand this phenomenon, because at such times, despite the most eloquent justifications, budgetary reductions are inevitable. In such situations work harder position is to be adopted rather than opposing the management.

Library reports should usually concentrate on accomplishments rather than on unsolved problems, because management would rather not hear about problems and it is pleasant to speak of accomplishments.

The library's planned growth and improvement will ultimately be judged against overall institutional goals and objectives. The library's contribution to those goals must be claimed. This may be difficult to prove, but not difficult to demonstrate as reasonable.

The library's value is in providing efficient, effective and low cost services to its users. The fact that most of these users are researchers, faculty and students of the academic institutions, whose contribution to overall institutional goals is just as indirect as the library's. Librarians must plan for reasonable direct and indirect revenue out of their library services.

In most institutions some level of official communication is prescribed, including annual and usually monthly reports. Librarians should make careful and planned use of these, particularly if they know that these reports are forwarded to even higher levels of management or that they become a record on which further discussion, evaluation and planning are to be based. In general, do not report what management neither understands nor cares about. Fundamentally a report should communicate both accomplishments and problems, usually accompanied by some sort of statistics to indicate level of activity.

But formal reports are poor mechanisms for the communication of new ideas. New ideas are best communicated through informal face-to-face conversations with your immediate authority. In this way, the ideas can be explored, shifted and modified, all without danger or risk, since nothing has been put on paper. Once the idea has been accepted, then it is time to propose it in writing. Informal meeting with management on a regular basis are essential.

It is necessary to convince your authorities not only that the library is important, but that credit will be accrued to them if you and the library do a good job. You must base your approach on an understanding of the authority's personality.

Library Users

No clear distinction between users and management is possible. Obviously not all users are in the library's management chain, but all of the individuals in that management chain should be brought into the circle of users. In addition, other institutional decision makers should become users and supporters of library services. It stands to reason that since libraries are provided for the benefit of users, the opinions of these users will frequently be heeded by management more readily than the requests of the librarian.

Users may simply accept poor service, blame the librarian for a lack of response or develop their own alternatives to the library, but inadequate service will

not make them supporters of the library. Librarian must point out the difficulties in not providing quality service. He must rectify the difficulties within a reasonable time and improve the service, and if not possible, the service should not be offered.

Users can also play an important role in helping to convince the management to increase support for library service. Sometimes it is necessary to channel them into such a role through very direct irritations although such an action involves risk. Nevertheless, at times there is no alternative.

Library's needs can be well projected to the management through an advisory committee. The development of a successful plan for ensuring growth rests on several general principles. In large part it must be based on an astute awareness of changing organisational initiatives and priorities, on support for projects that are considered crucial to success and growth.

The librarian must begin a careful process of engineered dissatisfaction, accompanied by reasonable and broadly supported plans for dealing with those dissatisfactions. The Statement 'never bring your boss a problem, unless you also bring a proposed solution' is worth remembering.

The greatest problem with management is not opposition but indifference. Libraries must ensure that they also serve the decision makers in the organisation. This requires an understanding of who these people are, an attempt to orient both collection and services to their usually specialised needs, and a conscious plan to win over a group of people who are probably not instinctive or experienced library users.

Library Staff

Normally the reactions of library staff to the new technologies are mixed ones. Some feel comfortable and a few feel threatened or confused about their new role as end-users become empowered to search for their own information. It seems that staff in libraries which have a well established electronic information facility realise that its presence does not threaten their jobs. But they need to be put on continuous training which means spending expensive time and money. Sometimes, poorly trained staff, or those who lack confidence, will fail to encourage library users to make use of electronic sources, in case something goes wrong which they cannot fix. In such situations the librarian will take the risk of solving the problems. The challenges posed to librarians by new technology seems in general to stimulate them and thus to encourage the users they serve.

Another means of influence of library staff on end-users is through training courses. Librarians and their

staff may first need training themselves in educational methods, before they can effectively teach and support the users in the relative complexities of the new facilities on offer. Librarians have to play a role in finding ways to maximise the activity of library staff to assist with the integration and successful use of new electronic resource developments, without making impossible demands on their time or skills.

Recruiting a candidate with appropriate skills required is a great challenge for today's librarian. He has to search for persons of such calibre setting aside all types of social, political, organisational pressures.

Problems Facing Libraries

The problems facing libraries in our country are many and vary from library to library.

Materials Problems

First problem is the inability of librarians to acquire the tools they need. Acquisition of information sources is difficult because of insufficient budgets, besides classification of resources. There is a serious shortage of modern equipment — computers, printers, connectivity accessories, photocopiers, CD-ROM system etc. Communications are totally inadequate and consequently the information flow is seriously impeded. The inadequate local as well as national networks, the high cost of telecommunications etc are some of the main obstacles. Another type of problems come from the various categories of human beings involved in the transfer of information. For most authorities and many users, there is a lack of awareness of the importance of information. As a consequence, the status of librarians is low. At academic librarians, there is an acute shortage of qualified manpower. Many still believe in a static role at a time when a dynamic role in transferring information has become vital from various points of view. Today's librarians should play a dynamic role for effective transfer of information. It is the responsibility of a Librarian to create a useful link between the user and the information. To do so a librarian should :

- analyse the user's needs and study their information seeking behaviour,
- keep a constant watch on the information flow within the institution,
- train and help the users in learning new techniques for information access,
- strike a balance between the existing needs and changed needs of the system,
- evaluate systems and procedures, from time to time, and
- maintain smooth, continuous relationship with management.

Conclusion

Information is a vital resource for mankind — and awareness of this fact should stimulate greater efforts from everyone who is in a position to preserve, expand and disseminate it. The main people involved in such a realisation are the authorities of the institution, potential users and the librarians.

It is obvious that new developments with respect to information technology will change the information cycle dramatically. Users will be able to access information, bibliographic databases and also primary sources wherever they be located without visiting a library. The monopoly of the library as the gateway to information is, thus, threatened. Libraries have to anticipate these developments and make full use of the strengths of the libraries and the librarians.

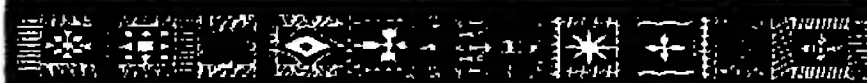
The new electronic services create opportunities to develop tailor-made services for specific user groups who will be able to determine and select relevant information more efficiently and more effectively. In this way the technological development will not be a threat to libraries but an opportunity.

Librarians are faced with considerable obstacles, yet are sparingly provided with the means to cope with them. Their task is indeed very difficult, but it is also a very challenging one. Librarians have to get themselves involved in new means and methods of managing the modern academic libraries, whose management has several new dimensions to cope with. But there is some comfort in the fact that the resources for which librarians are responsible are becoming increasingly vital for the development of mankind, and that consequently the importance of their role will progressively attain more recognition in the years to come.

Libraries have a history of adapting to, even embracing, changes that are effective in meeting the needs of information seekers. Along the way, librarians have developed skills in organising information sources and beliefs about the propriety of access to information sources. But the vision of easy access to information is to be achieved, which is the real challenge to today's library professionals.

References

1. Sharma, P.L. Exploitation of IT, Academic libraries and human resources development. In *Information Management in Academic and Research Libraries*. Mahapatra, R. et al. ed. Inflienet Centre; Ahmedabad, 1998. P. 27-30.
2. Rashid, A. Implementing and managing information technology; *Guidelines for Libraries*. *Lib. Sc.*, 35, 2; 1988, 117-123.
3. Shaw, D. Libraries of the Future : Glimpses of a Networked, Distributed, Collaborative, Hyper, Virtual World. *Libri.*, 44, 3; 1994; 206-223.
4. Lang, B. The Electronic Library . Implications for Librarians, Academics and Publishers. *Libri.*, 44, 4; 1994; 265-71. □



The University of the South Pacific

Serving the Cook Islands, Fiji, Kiribati, Marshall Islands,
Nauru, Niue, Samoa, Solomon Islands, Tokelau, Tonga,
Tuvalu, Vanuatu

SCHOOL OF SOCIAL AND ECONOMIC DEVELOPMENT

Assistant Lecturer/Lecturer in Management & Public Administration (3 Positions)

Ref. FMP024

The appointee will be responsible for teaching undergraduate and postgraduate courses both on campus and through the extension mode; participate and contribute to research and publications profile of the Department and School, contribute to administrative functions of the department and to the school development programs and consultancy.

For appointment at the Assistant Lecturer level, applicants must have a relevant Masters degree. For appointment at the Lecturer level, applicants must have either a PhD with a good research and publication record or relevant Masters degree with extensive professional experience, significant experience in tertiary teaching and/or research in at least two of the following areas: Human Resources Management, Industrial Relations, Organisational Behaviour, Marketing Management, Operation Management, Entrepreneurship and Small Business Management, Strategic Management, Management in the Public Sector and Organisational Development.

Preference will be given to applicants with substantial industrial experience in any of the relevant areas, consulting experience; and experience in distance education.

Appointments to Assistant Lecturer positions will normally be made to citizens of the USP member countries.

Enquiries and further information, R.D. Pathak, Professor and HOD, ph (679) 212137, fax- (679) 301487 or by e-mail, pathak_r@usp.ac.fj

These positions are available from July 2000 for a period of three years and may be renewed by mutual agreement.

Salary range: Lecturer F\$34 739 to F\$45 709 per annum
Assistant Lecturer F\$27 425 to F\$32 910 per annum
(inclusive of 15% gratuity)

Two copies of your application, including full curriculum vitae plus certified copies of academic qualifications and transcripts must be forwarded to The Recruitment Manager, The University of the South Pacific, Suva, Fiji, by 5 May 2000. Applicants must request three professional referees to forward signed reports (quoting reference number) to the above address. Please note that applications and referees reports sent by e-mail will not be accepted.

Applications will not be acknowledged unless specifically requested.

The University Website address is: www.usp.ac.fj

TUP94251

USP IS A MULTI-MODAL TEACHING INSTITUTION

Self-Concept Enhancement Programme

Reaction of Participants

Vandana Gupta*
D.N. Sansanwal**

Introduction

Self-concept is one of the most important personality characteristics of an individual, which is responsible for his performance in different walks of life. Therefore, it is very important that a person should have a well developed self-concept if he wants to be personally and socially well adjusted in life. Various activities have been designed by psychologists for this purpose that help an individual to become aware of his deeper feelings and values.

Various researches *Di Carlofelice* (1994), *Shechtman and Bar* (1994), *Prinsloo* (1995), *Steen* (1995) and *Torres-Ortiz* (1995) have been conducted to study the impact of different strategies, approaches and programmes on self-concept of students. However, no study could be found in the literature that investigates the response of the participants towards the programme they have to undergo. Hence, a Self-Concept Enhancement Programme was developed to improve the self-concept of students and the change in reaction towards Self-Concept Enhancement Programme of students treated through Self-Concept Enhancement Programme was investigated in the present study.

Objective

To study the change in reaction towards Self-Concept Enhancement Programme of students treated through Self-Concept Enhancement Programme.

Hypothesis

There will be no significant change in reaction towards Self-Concept Enhancement Programme of students treated through Self-Concept Enhancement Programme.

Sample

The sample of the study comprised of students studying in Kasturbagram Rural Institute, affiliated to Devi Ahilya Vishwavidyalaya, Indore (M.P.). The sample comprised of 76 undergraduate female stu-

dents of Arts (B.A. II and B.A. III years) as well as Home-science (B.H.Sc. II and B.H.Sc. III years). The students belonged to rural as well as urban areas. Majority of them were from average SES. All students were hostelers. Their age ranged from 17 to 23 years. The medium of instruction both in Arts and Home-science disciplines was Hindi.

Design

The present study was experimental in nature. In this study 'Self-Concept' Enhancement Programme' constituted the treatment. Under this programme, special 40 exercises were planned and each student did the given exercise for a given duration. The reaction towards Self-Concept Enhancement Programme of experimental group was assessed at the end of the 10th exercise as well as at the end of the 40th exercise.

Tool

In this study data were collected in respect of reaction towards Self-Concept Enhancement Programme. The Reaction Scale was developed by investigator for assessing the reaction of students towards Self-Concept Enhancement Programme. Aspects of Self-Concept Enhancement Programme included in the Reaction scale were (1) Duration of the programme, (2) Effectiveness of programme with respect to development of personality, self-confidence and interests, (3) Social relations, (4) Self expression in public, (5) Frequency, (6) Development of memory, (7) Usefulness in routine teaching, (8) Group activity, (9) Understanding of self, (10) Thinking ability, and (11) Punctuality. These aspects were presented in the form of statements to which the students were expected to react in order to express the extent to which they liked the Self-Concept Enhancement Programme. This scale consisted of 22 statements. There were 12 positive and 10 negative statements. Against each statement, there was a five point scale, namely, Strongly Agree (SA), Agree (A), Uncertain (U), Disagree (D) and Strongly Disagree (SD), which were respectively assigned weightages 5, 4, 3, 2 and 1 for positive statements and 1, 2, 3, 4 and 5 for negative statements. The students were asked to read each statement carefully and put a tick (✓) on the appropriate alternative which best described her reaction

*Assistant Professor, Kasturbagram Rural Institute, Kasturbagram, Indore-452 020, **Director, Institute of Education, Devi Ahilya Vishwavidyalaya, Indore-452 017.

towards different aspects of Self-Concept Enhancement Programme. There was no time limit to respond to the Reaction Scale. In the present case, students took about 20 minutes.

Procedure of Data Collection

The students were explained the purpose of the present study and also briefed about the procedure to be followed under Self-Concept Enhancement Programme. The treatment continued for 40 working days for a duration of 45 to 60 minutes per day. During the treatment individual student did the given exercise which involved her cognitive and affective domains. Reaction of participants towards Self-Concept Enhancement Programme was assessed with the help of a Reaction Scale developed by the investigator. This Reaction Scale was administered to the participants at the end of 10th exercise as well as 40th exercise and scoring was done as given under tools.

Data Analysis

The data were analysed with the help of correlated t-test.

Results

From the Table 1, it can be seen that the t-value is 2.20 which is significant at 0.05 level with $df = 75$. It indicates that mean score of Reaction of students at the end of the 10th exercise is significantly different from those at the end of the treatment, i.e., at the end of 40th exercise. In other words there was a significant change in the reaction of students towards Self-Concept Enhancement Programme. In the light of this the null hypothesis, that there will be no significant change in Reaction towards Self-Concept.

Table 1 : Mean, SE, r and t-value for Reaction towards Self-Concept Enhancement Programme

Testing	Mean	SE	r	t-value
After 10th exercise	92.42	0.85	0.43	2.20**
After 40th exercise	94.37	0.80		

**Significant at 0.05 level

Enhancement Programme of student treated through Self-Concept Enhancement Programme is rejected. The mean score of reaction of students at the end of the treatment is significantly higher than that of at the end of 10th exercise. It may, therefore, be said that the treatment, i.e., Self-Concept Enhancement Programme could bring significant change in reaction towards this programme of undergraduate female students.

Discussion

On the basis of analysis, it can be inferred that there was significant change in reaction of students treated through Self-Concept Enhancement Programme. Students were found to have favourable reaction towards Self-Concept Enhancement Programme. The reaction towards different aspects of Self-Concept Enhancement Programme was assessed at two points of time during the process of experimentation. It was assessed at the end of 10th exercise as well as at the end of treatment i.e. 40th exercise. The reason for significant positive change in reaction may be that students actively participated in the programme. During the process of treatment students got a chance to realise their strengths, capabilities, potentials and goals, to express their feelings for their friends, to share their childhood, family and school experiences, to interact with their teacher more freely etc. Therefore, they might have found it to be useful, interesting, helpful in setting their goals and in increasing their confidence. This programme not only helped the participants in understanding themselves but it also helped them in understanding their classmates better which is not usually possible in routine life. Therefore, all these reasons might have been responsible for change in reaction towards Self-Concept Enhancement Programme.

References

1. Di Carlofelice, M.C. : The Evaluation of a Self-Concept Improvement Programme for students, *MAI* 32/06, P. 1513, Dec., 1994.
2. Prinsloo, M. : The Improvement of the Self-Concept of the Child in Child Care School by Means of Social Work and Aid-Rendering, *MAI* 33/06, P. 1737, Dec., 1995
3. Shechtman, J. and Bar, E.O. : Group Guidance and Group Counselling to Foster Social Acceptability and Self-Esteem in Adolescents, *J. for Specialists in Group Work*, Vol. 19, P. 188, Nov., 1994
4. Steen, C.G. : School-based Mediation : An Empirical Study of Children's Self-Concept and Mediation Skill Mastery Levels, *Diss. Abs. Int.* — A 56/04, P. 1328, Oct., 1995.
5. Torres-Ortiz, G. : Improving the Self-Concept of Minority Students with Art Activities (At-Risk), *Diss. Abs. Int.* — A 56/03, P. 800, Sep., 1995. □

Kindly quote your Subscription Number in all correspondence with the Circulation Department.

Role of Universities in the Changing Context

Dr. A. Gnanam, Chairman, National Assessment and Accreditation Council, Bangalore, recently delivered Dr. (Mrs.) S. Kantha, First Vice-Chancellor, RGUHS Endowment lecture at Rajiv Gandhi University of Health Sciences, Bangalore. He said, "A more fluid administrative structure, greater emphasis on student centred learning and outcome measures, use of various technologies to promote learning without time and space restrictions, redefined faculty and administrative roles, altered views regarding teaching, research and service and commitment to provide education and educational experiences throughout the life span will become the essential needs of the future." Excerpts

Introduction

Education, particularly higher education, as the instrument of individual, societal and economic transformation is well recognised now more than ever. Consequently, there has been a greater interest and investment in higher education world over with the concomitant increase in the number of students who opt for higher education. Further, the takers of higher education look for educational programs with specific objectives that would add value to their services in the international market. This demand for higher education for the international market will continue to increase during the years to come. Therefore, it is essential that the institutions of higher education draw a long-term strategic plan. The pre-requisite for such a long term plan is an understanding of the significant changes that are happening in the society and their possible impact on the system of higher education.

The Changing Context

The major changes that will have profound impact on the higher education sector include :

- The increasing economic integration across the world.

- The changes in the labour market.
- The changing structure of the economy of the nation as a whole.
- The changes related to public finances.
- The changes in the family finances.
- The advent of new communications and information technology on a large scale.
- The social and cultural changes.
- The changes in the demographic patterns.
- The environmental changes.
- The changes that are to be effected in the school and further education, and
- The developments in higher education elsewhere in the world.

The list may extend.

These contextual changes are common to all the societies of the world and they are due to several factors, the chief among them being the impact of science and technology. The cumulative effect of all these changes demands a different type of human resource from the one we have to sustain the society in the changed ambience. Conse-

quently there is a paradigm shift for the higher educational institutions to respond. They require strategies far beyond the occasional introduction of a set of new academic programs and courses. It may require a whole new structure, organisation and management of the system as a whole. Let me illustrate by taking a few examples of the above contextual changes and their implications on education, particularly the professional higher education.

The increasing economic integration across the world is one of the important changes we have to deal with. There has been an increasing trend in the organisation of industrial or other production systems on a global scale rather than on national or regional scale taking the whole world as their market. Consequently, their activities including the acquisition of raw materials, services and other inputs will also be from around the world. Apart from this global view, there is also a trend towards the formation of cross border alliances and ventures between the contiguous nations for the obvious advantages. Another trend is the change of approach on the part of most of the nations to encourage free trade. In the changed industrial climate, all the major corporations will enjoy complete freedom to locate their operations and research facilities anywhere in the world and look for employees from all over.

Another major trend is the change in the nature of the labour market. There will be a large scale rise in the proportion of women competing in the labour market more aggressively than before. There will also be an increase in the part time workers in the total work force as compared to the past. It is also anticipated that the overall trend in the future will be the decrease in demand for workers in the primary and manufacturing sector

and increasing employment scope in the service area. Gone are days in which the unskilled labour force was considered as an asset.

All these trends will have their impact on the nature and content of higher education, professional or otherwise. The major impact would be to expand the system to meet the increasing demand for higher education. The present level which caters to about 5% of the relevant age group amounting to about 5.5 million students has to be increased at least 4 fold to meet the anticipated demand for skilled and educated men in the changed socio-economic order. In the developed countries the target is to reach 40 to 50 per cent of the age group between 17 plus and 22 from their present level of about 20 to 30 per cent. The implications are that the self financing and private initiatives have come to stay and they have to be competitive in all their efforts. They may, perhaps be made eligible for partial financial support from the governmental sources, but by and large will be left to themselves to mobilise their own resources and manage themselves. This category will be much larger in size than what it is now in comparison with the governmental and grant-in aid institutions.

Besides, because of the exponential growth of knowledge and the increase in life expectancy of the population, more and more of adult learners will seek higher education either to update their knowledge and skill or to further their academic qualifications. A learning society will emerge in the next couple of decades in which there will be more adults seeking higher educational opportunities than they are now. They may demand a flexible educational structure with high levels of diversification. The non-formal education like the open university or distance education system will

have to supplement the formal ones. All the existing colleges and the universities will have to provide the non-formal education directly without leaving them to some other agencies or institutions.

In short, high quality, relevant higher education will have to replace the existing one for attracting and anchoring the operation of global corporations to develop the required skills and knowledge in the local workforce thus making higher education an international service.

The curricula and the education offerings have to be reformulated to equip the graduates with the new skills, needed instead of updating the knowledge component. There must be provision for the students to have practical experience and learn the skills of entrepreneurship and productivity. Graduates from certain subject areas, for example Graphic Design, Communications and Information Technology and Computers are likely to be self-employed or employed in small firms. It will be important that such programs of studies are given certain special focus.

The other major changing context relate to the economy of the nation, both the public and family finances. The current national expenditure on education is about 3.7% of the GNP and there is a promise that it will be increased to about 6%. That is about the maximum, any government can afford to spend on education. There can never be enough for the expanding educational demands. There are already a set of competing priorities from the primary and secondary education sectors. The higher education can hardly improve its reach even marginally depending solely on the government support.

On the other hand, there are positive indications of increasing affluence at the family level. The

size of the lower income group in the socio-economic scene is on the decline while the middle and upper income groups are on the increase, indicating that the students and their families would be able to contribute and invest on the education of their wards. This change in the family finance will result in the formation of a new compact in which the students, their families and the society along with the government will contribute collectively to the educational institutions, thus mutually helping each other and benefiting from each other. In other words the idea of self-financing institutions will gain greater acceptance and even become a predominant group in a decade or two.

Another changing scenario is the advent of new communications and information technologies with which a huge volume of information can be transferred with speed and at low cost. Therefore the development of high-level skills in communications technology will be one of the tasks of the undergraduate programs. This task will become essential not only to get the employment opportunities for our students but also for switching over to a different mode of our own teaching and learning processes.

The social and demographic changes also will have their impact on the education of the future. There is now greater emphasis on the recognition of the individual student as customer or consumer of education. People's expectations of publicly funded services have risen and they no longer accept unquestioningly what is offered. The increase in the proportion of older people in the population will also create a different type of demand.

Similarly, the impact of what is happening to the educational content and quality at the school level as well as the developments

in higher education elsewhere in the world cannot be ignored. Maintaining appropriate levels of participation in both initial and continuing higher education thus becomes important and nothing short of world class education will meet the expectations.

The great weakness in our educational system is the increasing divide in the size, quality and the inputs between the professional and general liberal education in our country. Presently nearly 90 per cent of the students enrolled are in liberal education but major demand is for professional education like engineering and medicine. Obviously not every one who receives professional education can expect employment opportunities.

After all there is a limit for the need of the professionals in any society. Since they are specialists, they can't be accommodated in any other vocation.

We are living in an era where development depends on the massive use of science and technology. There is a need to integrate S & T literacy with the universal literacy based on general knowledge. It is the skills and the related competencies along with the knowledge that counts, as one without the other will be of no use. Therefore, there is a need to integrate specialised education with the liberal arts programs and vice versa and the success of the future educational institutions will depend on their ability to integrate both. This is so because the future jobs will be more in the service sectors, where an appropriate mix of skill and knowledge would be of importance than either one of them.

Changing role of the universities

Because of the changing context, the universities are pressu-

red now to play different roles — roles that are different from the traditional ones. Instead of the traditional role of preservation, generation and transmission of knowledge, they have to actively participate in the socio-economic development of the country. Significant highlights of these new roles are given below :

- Providing educational programs of new models based on flexibility and learner choice.
- Preparing students for information era by developing the skill for information processing.
- Preparing students for life-long learning by developing an appropriate learning style among them.
- Providing for adult and non-formal education to an increasing percentage of mature learners.
- Providing for specialised skill oriented courses of different levels.
- Catering to the demands of the international market.
- Maintaining quality in all the above endeavours.
- Optimising the available resources to facilitate quality output.

The above highlights indicate that the universities have a crucial role to play in providing not only access to higher education but quality education to more people with less resources adding an international dimension. In short, Universalisation of Higher Education (UHE) and world class education should become the focus of our planning for the future.

The need for universal higher education — in line with the universalization of elementary education — has been increasingly felt in recent decades and perhaps will

be the mission of the next millennia. The shift from elitist to mass (higher) education, growing demand for access to higher education irrespective of the constraints, growing aspirational levels of the society, emerging non-formal systems like national and international open universities, seeking resources from non traditional sources, promotion of ideas like private universities and colleges, increasing demands for science and technology based teaching programs and institutions are indicative of this trend.

By world class education, one means knowledge and training that would be of use in any society in the world irrespective of their regional and socio-economic variance. It is the generic skills and competencies which cut across the traditional subject boundaries that should get more emphasis. In addition, these components should be at an internationally acceptable level. These two basic elements of world class education, namely relevance and excellence-quality-need to be not only ensured but also assured. Obsession with the quality education will remain forever as the higher education is no more an instrument of national development, but goes beyond as an international service.

It is important to mention in this context the growing demand for quality assurance for the educational provisions. Even though the institutions may be confident that all efforts are made at their end to provide quality education, it is essential that their claims are validated and certified by an external agency. Assessment and accreditation as an external quality assurance mechanism (EQA) has, therefore, emerged as an important integral part of educational process as evidenced by the establishment of the national accredita-

tion agencies all over the world in the past decade or so.

Unless we take note of these implications and change the very structure, style and function of the universities, we will not be able to step into the next millennium with confidence. At the macro level, the traditional structure of higher education that centres on faculty, scholarship, classroom teaching and a certification process, reflecting the bureaucratisation of society that has accompanied the industrial revolution needs complete reorganization. This structure though had served very well for the industrial age, is too fragmented and too geared to passive teaching to serve the needs of the future information era. A more fluid administrative structure, greater emphasis on student centred learning and out-

come measures, use of various technologies to promote learning without time and space restrictions, redefined faculty and administrative roles, altered views regarding teaching, research and service and commitment to provide education and educational experiences throughout the life span will become the essential needs of the future.

These changes need to be carried forward in detail at the micro level as well. For example, the role of the faculty will have to be redefined. They have to be an expert not only in teaching but also in discovering, integrating and applying the knowledge. This would change the very profile of faculty and their preparation for the job. We may have to redefine the job requirements of the faculty and concern ourselves with what experience and training will form part of his career.

It is therefore very important that the universities respond rather urgently to these changing contexts and the changed expectations. In fact a small delay in responding to these changing expectations had taken away the autonomy and freedom the universities have enjoyed all these millennia and national councils are cropping up like mushrooms to centralize and regulate higher education. Though one can be legitimately confident that the present trend of centralising the university's academic autonomy will not work in the long run and the institutions of higher learning can sit back and wait for the restoration of their rightful place in due course will not be a good strategy. Unless the universities are a little more positive and proactive with the changing society, the damage will be too much and may need too long to recover. □



UNIVERSITY OF DELHI

Ref : Estab. IV/ Advt. No. 165/2000

Dated : March 24, 2000

Applications are invited on the prescribed forms for the following posts, so as to reach the Registrar, University of Delhi, Delhi-110 007, latest by 28th April, 2000.

Sl. Department/Post/No. of Post/s /
No. Reservation & Special/Desirable
Qualifications, if any

1. African Studies Lecturer (1)
Diploma in Swahili Language.
2. Arabic Reader (1) Specialization 1. Classical/
Arabic Literature (Based education)
2. Well versed in Islamic Sciences (Hadith
Tafsir etc.)
3. Acquaintance with the Indo-Arab literature.
4. Capable of teaching in Arabic and English
3. Chemistry Professor (1). Reader (2) Organic
Chemistry.
4. Economics Professor (6), Reader (1),
Lecturer (2), Research Associate (4)
5. History Professor (1) Medieval Indian History
6. Library & Information Science Professor (1)
Desirable: Knowledge of Computer and their
application in Library and Information Science.
Lecturer cum Librarian (1)
Desirable : 1. Knowledge of Computer and
their application in Library and Information
Science.
2. Two Years experience of working in a
Library, in a professional capacity.
7. M.L.L. and Literary Studies
Lecturer (Manipuri) (1) (SC)

Desirable : Experience of Language teaching
and knowledge of comparative literature.

8. Physics & Astrophysics Professor (1),
Reader (2), Lecturer (1) (SC)
9. Political Science Professor (1) Indian
Politics, Reader (2) First Post-Political
Theory/ Western Political Thought,
Second Post-Public Administration.
10. Social Work Lecturer (1) Desirable :
Integrated Social Work Method, Social
Welfare Administration, Ecology and Social
Work, Social Work with special groups, Social
Case work and Women's Development.
11. Urdu Research Associate (1).

SCALE OF PAY :

Professor : Rs.16400-450-20900-500-22400;
Reader : Rs.12000-420-18300;
Lecturer : Rs.8000-275-13500;
Research Associate : (A) Rs 8000/- (Fixed),
(B) Rs.8800/- (Fixed), (C) Rs.10500/- (Fixed),
(In one of the grades depending on the
recommendations of the Selection Committee).
All the above posts, except that of Research
Associate, carry DA, CCA, HRA etc. as
admissible under the rules in force in the
University from time to time.
SC = Scheduled Caste
Application forms for the above posts can be
had from the Establishment Branch-IV
(Room No. 205), New Administrative Block,
University of Delhi, Delhi-110 007 during
working days (from 10.00 a.m. to 12.30 p.m. and
2.00 p.m. to 5.00 p.m.) either personally or by

sending a self addressed & postage stamped
envelope worth Rs.25/- (size 13 cms x 28 cms).

APPLICATION FEE :

Application fee of Rs 100/- (Rs.25/- in case of
SC/ST) (Non-refundable) for each post in the
form of Indian Postal Order/Bank Draft drawn
in favour of the Registrar, University of Delhi
payable at Delhi/New Delhi is required to be
submitted alongwith the application form.
Candidates must write their name and post
applied for on the backside of the Indian Postal
Order/Bank Draft.

NOTE :

1. It will be open to the University to consider
names of suitable candidates who may not
have applied,
2. Number of posts is given within parenthesis
against each post;
3. University reserves the right not to fill up
any of the vacancies advertised if the
circumstances so warrant;
4. Relaxation of any of the qualifications may
be made in exceptional cases on the
recommendations of the Selection Committee;
5. For Professor and Reader, other things
being equal, preference will be given to
SC/ST candidates;
6. 3% posts of Lecturers are reserved for
Physically handicapped candidates;
7. Separate application is required for each post.

K.K. PANDA
REGISTRAR



ALAGAPPA UNIVERSITY

KARAIKUDI-630 003

ADMISSION NOTIFICATION - 2000-2001

MBA-MASTER OF BUSINESS ADMINISTRATION
(2 Year Full Time Programme)

MCA-MASTER OF COMPUTER APPLICATIONS
(3 Year Full Time Programme)

MIBA-MASTER OF INTERNATIONAL BUSINESS ADMINISTRATION
(2 Year Full Time Programme)

<i>Programme</i>	<i>Eligibility</i>	<i>Admission Criteria</i>	<i>Date & Time of Entrance Test</i>
MBA	Bachelor's Degree in any discipline with not less than 50% of Marks	Entrance Test, Group Discussion and Interview	06.05.2000 10 - 12 AM
MCA	First Class Degree in Maths/ Physics/Chemistry (with ancillary Maths)/Statistics/ Computer Science/Applied Science/BBA/B.Com/BE (For SC/ST candidates 55%)	Entrance Test and academic marks	07.05.2000 10 - 12 AM
MIBA	Bachelor's Degree in any discipline	Entrance Test, Group Discussion and Interview	06.05.2000 2 - 4 PM

ENTRANCE TEST CENTRES : CHENNAI AND KARAIKUDI

Candidates applying for more than one programme will have to use separate application forms. Application and Prospectus can be obtained from the Registrar, Alagappa University, Karaikudi-630 003 on requisition along with a crossed Bank Draft for Rs. 350 (Rs. 100 for SC/ST candidates on production of photocopy of community certificate) drawn in favour of the Registrar, Alagappa University payable at Karaikudi by enclosing a self addressed stamped (Rs. 9.00) envelope of 35 cms x 10 cms.

Candidates appearing for the final year/semester examinations can also apply. Selected candidates have to produce their Mark Statements at the time of admission. Short-listed applicants for MBA/MIBA programmes, who will be intimate by post, will have to appear for Group Discussion and Interview during May/June.

LAST DATE FOR ISSUE OF APPLICATION FORMS : 19.04.2000

LAST DATE FOR RECEIPT OF COMPLETED APPLICATIONS : 20.04.2000

Late and incomplete applications will not be entertained under any circumstances. Interim correspondence will not be entertained.

Karaikudi
21.02.2000

REGISTRAR

Universities and Adult Education

A National Seminar on the "Role of Universities and Research Institutions in the Promotion of Research in Adult Education" was organized as a part of the Diamond Jubilee Celebrations of the Indian Adult Education Association (IAEA). The seminar was planned as a joint activity of IAEA and the Group of Adult Education of Jawaharlal Nehru University. The main purpose of the seminar was to review research and evaluation studies in the field of Indian adult education undertaken during the last decade. The specific objectives of the seminar were (i) To discuss different types of researches undertaken by universities, NGOs and research institutions in India during the last ten years; (ii) To identify the thrust areas, methodology and main findings of research studies and their policy implications; and (iii) To recommend suitable strategies for strengthening and promoting research in adult education.

The seminar was attended by 45 participants from different parts of country representing universities, NGOs and SRCs.

In his welcome address, Professor B.S. Garg, President, Indian Adult Education Association gave a lucid exposition on the status of adult education research in India. He hoped the seminar would provide an opportunity to the participants to review the researches done in adult education during the last ten years and recommend suitable strategies for promoting it. He exhorted the participants to keep in view, the research needs and potentialities of the emerging pro-

grammes of continuing education and the International scenario while identifying the future thrust areas of research in adult education.

Professor C.J. Daswani, Consultant, UNESCO India Office, New Delhi in his inaugural address spoke of the status of the University Departments of Adult Education and their role in promotion of research. He felt that the task of extension should not be confined to the Departments of Adult Education but be an integral part of all the departments of universities. "Unless the university departments of Adult Education strive to develop the discipline of adult education through innovative courses, basic researches and policy studies, they cannot succeed in achieving an equal status with other academic departments of universities", he said.

Professor S.Y. Shah, seminar Director, presented the background paper on the "Promotion of Adult Education Research in India : Prospects and Issues", in which, he briefly focused on the various researches undertaken by the Universities, NGOs and State Resource Centres in India during the last fifty years. He observed that the 700 researches and evaluation studies undertaken since 1950's in the field of Indian adult education; as many as 379 (more than fifty per cent) had been attempted during the last decade which bore testimony to the tremendous expansion of research and evaluation studies in India.

During the five sessions, there were fourteen state level presen-

tations on the status of adult education research in different parts of India.

One of the highlights of the national seminar was the special lecture delivered by Professor C.L. Kundu, Advisor Rehabilitation Council of India on the "Future Vision of Adult Education Research in India." Professor Kundu gave a detailed account of adult education research in India and emphasised the need for focusing on environmental concerns, effective use of leisure, reeducation and training of adults, vocational and social pedagogy of adults, typologies, quality of life, female literacy, taxonomy of adult education activities, mass media and motivation.

The seminar was conducted in three groups, namely, Group I — Population Education; Group II — Methods, materials and media; and Group III — Evaluation.

After detailed deliberations the following recommendations emerged :

1. A Systematic Statewise study on the status of adult education research needs to be undertaken;
2. A comprehensive research proposal needs to be developed by IAEA along with budgetary requirements and identification of state level coordinators;
3. A national level documentation and clearing house on adult education research needs to be set up at IAEA, with a view to procuring all the researches and evaluation studies completed and in progress and disseminating

the main findings through the IAEA newsletter;

4. Regular biannual conference on research needs to be organized for presentation, discussion and dissemination of researches among policy makers, administrators and academicians.
5. Regular capacity building programme for adult educators interested in research need to be organized through short-term research methodology course;
6. A national task force on research may be constituted;
7. A national network of researchers in adult education may be developed.
8. Prizes and awards for excellent researches done in adult education may be instituted;
9. Indian Journal of Adult Education should devote a section for the publication of research abstracts; and
10. An academician of proven competence in research may be appointed by IAEA to co-ordinate all its research activities.

Libraries and Information Centres in the 21st Century

The CHMK Library and Department of Library and Information Science, University of Calicut propose to organise a National Seminar on "Organisation of Libraries & Information Centres in the 21st Century" during 26-27 May 2000. The Seminar will be sponsored by the Library Endowment, University of Calicut.

It is expected that the chosen theme will give an impetus to the library profession in India to reor-

ganise itself to suit the requirements of the electronic era.

The following facets are included under the broad framework of the seminar theme "Organisation of Libraries and Information Centres in the 21st Century".

- Library legislation — Its implications in the information age.
- Copyright Act vis-a-vis modern technology — practical experiences.
- Delivery of Books Act and Depository collection — Reassessment in the present context.
- Centralisation of resources and services.
- Union catalogues and their online access.
- Networking and resource

sharing in libraries and information centres.

- Impact of Intranet and internet on the organisation of libraries and information centres.

Further details may be obtained from Dr. M. Bavakutty, Chairman Organising Committee, National Seminar on Organization of Libraries & Information Centres, CHMK Library, University of Calicut, Kerala-673 635.

Seminar on Indicators of Quality Education

The NCERT announces the Sixth International Research Seminar on Indicators of Quality Education at the Elementary Stage at New Delhi during December 13-15, 2000. The focus of the seminar will be on researches particularly dealing with the Indicators of Quality Education at the Elementary Stage.

ACHARYA N.G. RANGA AGRICULTURAL UNIVERSITY

Admn. Office, Rajendranagar, Hyderabad-500 030

Advertisement No. 1/RC/2000 Dated 24-3-2000

Limited Recruitment confined to SCs and STs - Assistant Professors - Extension Department (SC-1B, 1C, ST-2) - Family Resource Management (1ST), Foods & Nutrition (Community Health Science) (SC-1B, 1C) and Textiles and Clothing (1ST), in the faculty of Home Science

Prescribed Application Forms together with full details of Qualifications prescribed for the posts can be had by paying Rs 50/- in person. The Registration Fee is Rs.50/- payable at the time of submission of filled-in application by Cash/DD. For obtaining it by post a Crossed Demand Draft in favour of Comptroller, ANGR Agricultural University, Hyderabad, shall be sent along with requisition letter and a self-addressed and stamped envelope of Rs.20/- of the size 35 x 15 cm. The cover containing the requisition for application forms shall be superscribed "REQUISITION FOR ASSISTANT PROFESSOR POST" and sent to the Registrar at the above address.

Candidates should possess the requisite qualification as on the date of this Notification. Scale of pay Rs.8000-275-13500 (UGC 1996).

Sale of applications is 3-4-2000 and last date for sale of applications is 1-5-2000 and filled-in applications should reach the undersigned on or before 10-5-2000 by 4.00 PM.

The University reserves the right not to fill up or any of the post Advertised.

**V. PRADHAKAR RAO
REGISTRAR**

—studiograph—

Full papers are invited on the above mentioned theme. The papers should be based on experimental research work or on case studies showcasing indicators of quality education at the elementary stage of schooling in developing countries. The educational scenario at the elementary stage in India encounters majority of understaffed schools, crowded classrooms, large number of out-of-school and hard-to-reach children, low level of achievement and lack of infrastructure. Keeping these issues in perspective, a large number of intervention programmes have been anchored by the State to bring about qualitative improvement in school education at the elementary stage. Researches in the forthcoming seminar should be such as to provide solutions to a multifarious problems of elementary education in the context in which the schools operate in India.

Further details may be had from Dr. Ved Prakash, Professor & Head, DPEPCRG, NCERT, Sri Aurobindo Marg, New Delhi-110 016, India. Phone : 91-11-6515382 Fax : 91-11-6868419, 91-11-6864141 E-mail : dirc@giadsl01.vsnl.net.in

Bangalore Varsity Convocation

Dr. R.A. Mashelkar, Director General, Council of Scientific and Industrial Research (CSIR) called for revamp in the governance of Indian universities to pave way for creating a new social and economic system.

Universities must serve as the conscience of the nation, help individuals in self improvement and should develop a close linkage with the social and economic system through an innovative approach, he said while delivering the 35th convocation address of Bangalore University.

"The primary task for our education system should be to create those young inquiring minds and unleash their creativity for the resurgence of the nation", he said. Systems that are responsive and caring, especially to the needs of young minds need to be built by overhauling the entire machinery of administration and procedures, he added.

Regretting that the education has been centred more around text books, he called for reorientation in the outlook of teaching and overhauling of the examination system laying emphasis on evaluating creativity and new thinking rather than memorisation of facts. "The schools must move from becoming education centres to knowledge centres and skill centres", he added.

He said that a confluence of scientific, civilizational and spiritual knowledge will be the 'universal knowledge of the new millennium' and urged universities to lead the way in creation and dissemination of such knowledge systems.

He suggested that Bangalore University could set an example by involving students in non-formal innovations by taking them to villages and tribals. There was a need to create a national register of such innovations and students should be made to participate in this exciting endeavour, he added.

Dr. Mashelkar said with the advent of internet there was need to change evaluation systems and which should be continuous and individually centred.

Dwelling on Information Technology, he said that one of the great challenges of IT invasion was to create an "equity between the information rich and the information poor."

He stressed the need for innovative ways of preventing the erosion of traditional knowledge and added that university education and research needs to tackle such important issues in a suitable way.

Earlier, Governor Ms. V.S. Rama Devi, who is also the Chancellor of the university, presented 185 gold medals and 81 cash prizes to as many as 135 candidates in the faculties of arts, science, commerce, education, medicine, law, engineering and technology, communication, oncology. As many as 83 candidates (19 in arts, 43 in science, 2 in management, 3 in education, 10 in engineering and 6 in medicine) received their PhDs.

In this convocation, 21,835 students became eligible for award of degrees in various faculties. As many 18,033 students have applied for award of degrees.

Internet Related Training Programme

Central Institute of English and Foreign Languages, Hyderabad plans to organise in association with Delhi Library Network (DELNET) and Satyam Computers a Training Programme on Database Creation, Internet Applications & Web-page Design on 28-30 April, 2000.

This programme is meant for library professionals, information specialists and computer personnel working in colleges/universities, government organisations, R&D institutions and other bodies.

The theory sessions would be conducted in the Computer Laboratory, CIEFL Hyderabad. For hands-on experience, practical sessions will be held at Satyam Computer Services Ltd., Secunderabad.

The training programme would cover the following topics :

- Creation of Databases : Standardisation (MARC, Library of Congress Subject headings), Planning, Design, Execution, Maintenance;
- Accessing Online Databases (Delnet, BiblioLine);
- Indian Databases : An overview;
- Databases Search Strategies;
- Internet Resources for LI Operations (acquisition, serials control, cataloguing, classification, management, indexing and abstracting, etc.);
- Internet Applications in LI Services (browsing software, search engines, search strategies, optimisation techniques, CAS, SDI, searching web-based databases, etc.); and
- Web Page Creation : Planning, Design, Construction, Launching, and Maintenance.

Further details can be had from the Programme Coordinator, Dr. M. Kanakachary, Assistant Librarian, Central Institute of English and Foreign Languages, Hyderabad-500 007, India. E-mail : mkc@ciefl.ernet.in

Technical University for U.P.

The Uttar Pradesh Government is reported to have decided to set up a technical university to give affiliation to private engineering colleges in the state. With the state government's decision to liberalise technical education, private institutions have mushroomed across the state in large numbers.

The new university will basically function as a body to oversee the process of admissions and examinations in these colleges.

The University is likely to be set up at Lucknow. Its administra-

tive headquarters will initially be located in the premises of the Institute of Engineering and Technology.

The necessary Bill to establish the university is likely to be introduced in the coming session of the state legislature.

Uttar Pradesh has an engineering university at Roorkee besides 10 autonomous bodies running engineering colleges. There are two government-sponsored bodies which run such colleges.

With the state government's decision to liberalise technical education and the opening of engineering colleges as many as 67 no-objection certificates have been issued. This has increased the number of admissions in engineering colleges from 2,285 in 1997-98 to 10,654 during the current year.

The new university will be financially self-supporting. Its earnings will be from affiliation fees, entrance test fees and examination fees to be charged from colleges.

Courses in Business Studies

The Guru Gobind Singh Indraprastha University has decided to introduce Master of Business Studies courses in E-Com-

merce, International Marketing and Computer-Aided Management in the next academic session.

As the University has been striving hard to provide market and technology-oriented professional courses to the Capital's students, the new courses are an effort towards developing manpower in information and technology, according to the Vice-Chancellor, Prof. K.K. Aggarwal.

Prof. Aggarwal said that all entrance examinations for the next academic session had been scheduled between May 14 and June 20. The fee structure for management and engineering courses has been fixed at Rs. 25,000 and Rs. 14,000 respectively, he added.

To avoid uncertainty for students, the University will be issuing entrance examination admit cards at the time of submission of the application form which, he claimed, is the first of its kind in India.

Prospective students can even download application forms and prospectus for its courses from its website — to be launched shortly. The University has been entrusted with the task of conducting entrance tests for diploma courses in polytechnics in Delhi, he said. Ten per cent of the seats have been reserved for diploma holders in degree courses of engineering colleges.

Book Your Advt.s. in

ALL NATIONAL & REGIONAL NEWSPAPERS

i.e., Employment News, Hindustan Times, Times of India, Indian Express, Statesman, Tribune, etc.

at Same Rates.

Contact:



NIRMAN ADVERTISING PVT. LTD.

20, Nehru Bazar, Paharganj, New Delhi - 110 055

Tel : 011-3518107, 3553353, 3541430 Fax : 011-3513558

E-mail : nirmanad@vsnl.com

The University will soon constitute a review committee of eminent educationists to look into the educational milieu of its affiliated colleges and make recommendations for improvement, if required, he said.

Gauhati Varsity Convocation

An innovative attitude holds the key for development of the country in the current century and it must be imbibed among the masses at all costs, said Prof. R.A. Mashelkar, Director General of the Council of Scientific and Industrial Research (CSIR) while speaking on the occasion of the golden jubilee (50th) convocation of Gauhati University. Prof. Mashelkar prescribed a set of Panchsheel rules to be followed by the people for ushering in an era of prosperity. These included child-centred education, women-centred family norms, human-centred development initiatives, knowledge-based society and an innovation-centred India.

He said that provided these five principles were implemented successfully India would be able to lead the world soon. The convocation was presided over by Governor Lt. Gen. (retd.) S.K. Sinha who is also the Chancellor of the university.

Prof. Mashelkar said that by 2050 more than 50 per cent of the country's population would be below 20 years in age. "This demographic profile opens up a great scope for training our children and youngsters with knowledge-based industrial inputs so that an entire generation can take advantage of this," he said.

Asserting that the future is wholly dependent upon knowl-

edge-based industries, he said that the Indian masses enjoyed a great advantage over the rest of the world in terms of intellectual advancement. Admitting that years of colonial subjugation has eaten into the independent attitude of the people to some extent, he stressed upon cultivating this attitude with top priority.

Prof. Mashelkar also called upon the students for keeping their pursuit of knowledge as long as they continued to breathe.

Prof. Mashelkar and eminent singer Dr. Bhupen Hazarika were conferred 'D Sc' and 'D Litt' (*honoris causa*) respectively for their contributions.

Addressing the function, Dr. Hazarika said that celebration of golden jubilee of the university as well as the Constitution of the country simultaneously at the beginning of the new millennium holds new promise for the country. He also rendered *jilikabo luitorey par* the song he composed to celebrate the occasion of the birth of GU.

Dr. H.L. Duorah, Vice-Chancellor of Gauhati University in his speech vowed to keep on working for advancing the standards of the university in various fields.

He informed that at present the university had 168 colleges affiliated to it with 1,03,368 students on its rolls. The number of teachers of the university is 311 supported by about 1,400 non-academic staff.

Chancellor of the University, Governor Lt Gen (retd) S.K. Sinha called upon the students to prepare themselves with confidence to face the challenges of the practical world with their knowledge of the classrooms. He also remembered the contribu-

tions of late Lokapriya Gopinath Bardoloi for establishing the university.

AIIMS and NY Varsity Tie Up

The All India Institute of Medical Sciences has entered into an academic partnership with the Hospital for Joint Diseases, New York University, to promote research and exchange medical expertise in the field of orthopaedics.

Dr. Vir Prabhu Dhalla, and alumnus of AIIMS and currently practising at the Hospital for Joint Diseases, New York, describes this as a collaboration in which doctors from both the institutions can share experiences.

"For instance, an orthopaedic surgeon trained in the United States may not know what a tuberculosis-diseased bone looks like," he says. "This is a once-in-a-lifetime case in New York, but here they can get more experience of bone tumours. Similarly, they can come here and learn about polio which does not exist in the US."

According to AIIMS Director Dr. P.K. Dave, surgeons here would benefit greatly from surgical techniques of the hand which are lacking in India. Observing that the hand is an important organ because it has many functions, he regretted that hand services have not really been developed in the country.

Other areas, which will benefit the Indian doctors, include arthroscopy of the shoulder, wrist and elbow.

Dr. Dhalla observed that while arthroscopy of the knee has been there for sometime, the same is not the case with other joints.

Dr. Martin Posner, chief of hand service, department of ortho-

paedic surgery, hospital for joint diseases, said his institution has the largest orthopaedic training programme in the US.

The orthopaedic staff consists of 120 physicians and for the hand alone there are 12 specialists. "We treat lots of children with cerebral palsy and congenital hand deformities," he said.

Transportation Engg. Centre

Karnataka Minister of State for Higher Education, Dr. G. Parameshwar has announced that the State Government would soon take steps to set up a Centre for Transportation Engineering at Bangalore University. Inaugurating the silver jubilee conference on "Road Infrastructure management in the new millennium" organised by Bangalore University to mark the 25th anniversary of University's postgraduate course on Highway Engineering, the minister said the proposed centre would strengthen the on-going research in highway engineering, which is the need of the hour. The centre, which would conduct research and surveys on traffic system and road designs, will also coordinate with civic agencies like Bangalore Mahanagara Palika and Traffic Police, he said.

While the UGC would provide funds for research works for such centres, steps would also be taken to involve private participation in a bid to ensure availability of private funds for research works, he said.

Dr. Parameshwar also stressed the need for bringing about a legislation making it mandatory to complete projects within the stipulated time. He

expressed concern that usually there was inordinate delay in implementing projects which would result in escalation of project cost. Citing an example, he observed that the Bangalore-Tumkur four-lane highway was yet to be completed, though it was conceived way back in 1984.

Expressing concern over the bad condition of highways, he suggested that system of toll collection should be introduced for the highways to raise funds for their maintenance.

Speaking on the occasion, Bangalore University Vice-Chancellor, Prof. Siddappa said the on-going research works on highway engineering will receive a boost by the formation of such a centre due to the availability of UGC funds.

The proposed centre will concentrate on advanced research on road maintenance, increasing efficiency, and reducing the cost of road construction as well as maintenance, he said. It would also come out with guidelines for road safety and maintenance besides working on developing innovative road systems for saving fuel, he added.

He said it was possible to conserve fuel to a great extent through efficient traffic designs, and observed that too many road humps in the City had resulted in excess consumption of fuel. He urged the transportation engineers of the university to conduct a study on the extent of excess fuel consumption by the vehicles due to "large number" of road humps in the City.



INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY

Powai, Mumbai 400 076.

Advertisement No. N-36/1999-2000

Admission to M.Tech In Energy Systems Engineering - Sponsorship by Atomic Energy Regulatory Board

Application are invited for admission for M. Tech In Energy Systems Engineering starting in July 2000.

ELIGIBILITY : B.Tech / B.E. in Mechanical, Electrical, Chemical, Aeronautical, Civil, Metallurgical Engg. Or allied disciplines with valid GATE score.

Apart from the Institute assistantships, the Atomic Energy Regulatory Board (AERB) sponsors upto 5 students per year for the Energy Systems Programme. AERB enforces safety provisions in nuclear power stations and other nuclear and radiation installations. Selected students receive a monthly stipend of Rs.8000 and a one time book allowance of Rs.4000. After completion of their M.Tech, AERB proposes to absorb them as Scientific Officer (C) in the scale Rs.8000-275-13500. The total emoluments at the beginning is approximately Rs.13,660/- per month if the candidate is posted at Mumbai and Rs.11,360/- if the candidate is posted at Kalpakkam. Candidates may be offered additional increments based on their performance in the programme. Students will have to execute a bond to serve AERB for a period of three years.

Fee for Application Form, Information Brochure & Processing (Rs.300/- for General category and Rs.100/- for SC/ST candidates on production of caste/tribe certificate) can be paid by sending a Demand Draft in favour of Registrar, I.I.T. Bombay along with a self-addressed/stamped (Rs.15) envelope of size 27 cms x 12 cms.

Issue of forms : From 06.03.2000 to 14.04.2000 till (20.04.2000 from counter)

Last date for receiving completed application forms 20.04.2000

For further details see the IIT Bombay advertisement for admission to M.Tech programmes in this paper on March 5 or visit www.iitb.ernet.in/~ee.

News from Agricultural Universities

UAS Convocation

National Dairy Development Board (NDDB) Chairperson, Dr. Amrita Patel said the new national agriculture policy should focus on aspects relating to productivity through nurturing and propagating India's own unique range of natural and domestic resources of plant and animal life instead of aping western technologies. Delivering the 34th convocation address of the University of Agricultural Sciences (UAS), Bangalore, she said the agriculture policy is being drafted on the assumption that the tools of modern biotechnology and genetic engineering will result in new high-yielding varieties which are pest, disease and stress resistant. She termed these assumptions as "a blinkered and tunnel vision."

"Our own domesticated breeds and varieties of livestock and plant life have been genetically crafted over many centuries of our long and ancient civilisation to suit the wide range of agro-climatic conditions and social structures that prevail in the Indian sub-continent and which foreign and western inspired technology cannot improve upon but only destroy", Dr. Patel said.

She stressed that agricultural research must be inspired by the true need of the vast number of farming communities in the country.

Dr. Patel said it was high time the country developed independent technologies and national policies to suit the country's needs and cautioned that the country will have to bow to the "dictates of multinationals who will determine

the subservient role they wish us to perform."

Dr. Patel said the NDDB has offered to set up a parallel terminal market with backward linkage to the farmers and forward linkage to the retailers to enhance benefits to farmers and retailers of Karnataka.

The proposed set-up would be professionally managed. The primary source of produce supply will be collection centres owned and professionally managed by farmers' organisations. To succeed, the market must operate outside the purview of the agriculture produce marketing act, she added.

Dr. Patel urged the states to redefine their roles to encourage private organisations, individual entrepreneurs and producer organisations in the area of agriculture and animal husbandry.

The current co-operative legislation in many states has hindered the same, she said and expressed the hope that the centre and state governments will follow the path of Andhra Pradesh, Bihar, Madhya Pradesh and Kashmir in establishing parallel legislations that give full freedom to self-reliant co-operatives to serve the interests of their members.

Earlier, Governor Ms. V.S. Rama Devi, who is also the Chancellor of the University, presented gold medals and certificates of merit to 49 candidates for excellence in their fields of study at the postgraduate and graduate level.

Delivering the welcome address, UAS Vice-Chancellor Dr. S. Bisaliah said the varisty had made

a beginning in tapping sources from private and public agencies involved in agri-business for funding programmes of mutual interest.

At the convocation, 642 students were conferred degrees which included 404 bachelor's degrees, 202 master's degrees and 36 Ph.Ds.

Dr. K.V. Peter, Director of research, Kerala Agriculture University, was presented the "Dr. M.H. Marigowda National Award" for his research on germplasm collection, genetic improvement and agrotechniques in vegetables. The Indian Council of Agriculture Research 'Best Teacher Award' was presented to Dr. D. Rajagopal.

Agri Business Management Course

The Indian Institute of Management (IIM), Lucknow has embarked upon an ambitious programme to focus its attention on agriculture management, education, population and health management, besides the corporates.

According to the IIM Director, Dr. Preetam Singh, the IIM would start agriculture business management course from 2000. "We have contributed enough to the corporate world, now we have decided to focus on non-corporate world," said Dr. Singh. He added "It was not that we had earlier ignored the non-corporate world, now the focus of attention would be more organised with a well worked out vision."

He said agriculture would continue to play a major role in the economic development by providing raw material to industries which in turn would help in creating more job opportunities in rural areas and value addition to agriculture.

The guiding philosophy is broad-based agriculture growth that leads to sustainable economic development.

Dr. Singh said : "Our vision is to develop IIM, Lucknow, as nationally and socially relevant school. It is necessary for the business school to look into the population growth as that is

directly linked to the quality of life in rural as well as the urban areas."

The Director said that the BIMARU states (Bihar, Madhya Pradesh, Rajasthan and UP) needed particular attention as improvement in public health care service and education were crucial for the growth of the region.

News from UGC

Countrywide Classroom Programme

Between 3rd April to 9th April, 2000 the following schedule of telecast on higher education through INSAT-1D under the auspices of the University Grants Commission will be observed. The programmes are telecast on the Doordarshan's National Network from 9.30 to 10.00 a.m. every day except on Saturdays & Sundays. These programmes are also telecast on Doordarshan's National Network from 6.00 to 6.30 a.m. on all days of the week.

3.4.2000

"The Saga of Life-1"
"Water Sports of Andamans"
"Comet"

4.4.2000

"Question Time-132"
"उद्योग और पर्यावरण : एक शांतिमय सह-अस्तित्व"
"Canoeing — An Emerging Sport"
"Unmasking Alphabets"

5.4.2000

"Heart Matters"
"Sir Ronald Ross"
"Swimming Sensation : V. Kutraleswaran"
"Bio-Diesel — Resurrection of

Honze Oil"

6.4.2000

"Safdar Hashmi"
"Touch of Genius"

"Amudha — The Iron Women of India"
"The Hindu Temple Sikharas-II"

7.4.2000

"Speak so that we may Hear"
"पवन उर्जा"
"Safira Shahnaz — A Commitment to Chess"
"Coaching an Athlete"

8.4.2000

"Early Chalukyan Temples : Pattadakal-II"
"About Gajagamini"

9.4.2000

"Jantar Mantar : The Temple of Instruments"
"Sufi Sama"

JAMIA HAMDARD

(Hamdard University)

Hamdard Nagar, New Delhi-110 062

ADMISSION NOTICE FOR THE SESSION 2000-2001

Applications in the prescribed form(s) are invited for admission to the following courses

POST GRADUATE COURSES :

(1) MCA (2) MBA (3) M.Sc in Biochemistry, Environmental Botany, Toxicology & Biotechnology (4) M Pharm in Pharmaceutical Chemistry, Pharmaceutics, Pharmacology & Pharmacognosy (5) M.D. (Unani) in Moalijat & Ilmul Advia (6) Master of Physiotherapy in Osteo-Myology, Cardio-Pulmonary, Neurology & Sports Health and (7) M.A (Islamic Studies)

BACHELOR/DIPLOMA COURSES :

(1) Bachelor & Master of Information Technology (Integrated course) (2) B Pharm (3) B. Pharm (Self-financing) (4) B.U.M.S. (5) B.U.M.S. (self-financing) (6) B.Sc Nursing (Hons.) (7) Diploma in Nursing & Midwifery (8) Diploma in Pharmacy and (9) Pre-Tibb

Bulletin of Information & Admission Form may be obtained from the Registrar's Office either by sending a self-addressed envelope (10"x12") alongwith crossed Bank Draft/IPO for Rs 300/- drawn in favour of Jamia Hamdard, payable at New Delhi or on cash payment from the reception counter of Jamia Hamdard on any working day from April 03, 2000. The request for the form should indicate the name of the course

Admission forms and Bulletin of Information may also be obtained from the following places :

Friends Book House, Samahad Market, Aligarh. Hamdard (Wakf) Labs at (1) Fehimabad, Kanpur (2) 37-Qazi Street, Basawan Gudi, Bangalore (3) Ara Distributors, 24 Jan Mohd. Street, Mount Road, Chennai (4) Hindustan Medical Agency, M-11, Marka Commercial Complex, Indira Gandhi Road, Calicut and (5) Ashok Raj Path, Opp. B.N. College, Benapur, Patna.

Last date for the submission of completed admission form is May 16, 2000

REGISTRAR

Phones : (011) 6089668, 6084685, 6086682, 6089309 Extn.:328
Fax : (011) 6088874

BOOK REVIEW

The Critical Sutra

Chanchala K. Naik*

Kapil Kapoor. Literary Theory : Indian Conceptual Framework. New Delhi, Affiliated East-West Press, 1998. Pp. XIII+210. Rs. 280.00.

One of the objectives of any critical method is to make sense of ourselves and the world we live in. Contemporary critical theory (theories) has problematised the whole context of our understanding of knowledge systems and moved through a method of sustained interrogations and disciplinary transgressions. The emerging radical situatedness, propelled by critical scepticism has privileged a free play of signifiers within a discourse of indeterminacy of meaning. There has been resistance to such a radical orientation in critical theory that interrogates our hitherto 'ways of knowing' and 'ways of being'. The resistance to critical theory in India, is argued upon the fact that the so-called march of theory is a creation of the West and we have nothing to do with it. However, the fact remains that contemporary critical theory has asserted itself in the everyday life of literary studies, refusing to accept its marginalisation as a peripheral concern insisting that there is no critical act that can transcend theory. Kapil Kapoor, who has been seriously engaged with Indian critical

theory for over a decade now, and is conscious of the so-called unsettling foci of post-structuralism has attempted, in the work under review, to examine Indian critical tradition in the context of the present scenario.

Attempts at re-looking, re-interpreting and re-trieving, Indian critical tradition have been isolated and sporadic. There has not been any systematic institutional effort in this direction. Those who are engaged in it are often accused of indulging in nostalgia and an impression is created in the academia that we don't need all those old stuff anymore. Kapoor's book is a challenge to this mindset. He does not consciously campaign to change anybody's attitude, but compels one to rethink about our own critical tradition. Kapoor's text is hypothesised on the thesis that the radical scepticism of today's critical practice cannot be simply assigned to the West, it has been very much Indian in nature and scope. The Indian world view whether regarding man, universe, knowledge or literature is non-reductive, and admits various tonalities in a single timber. Kapoor takes us on a conducted tour of all those 'sites' and we come home to Indian literary theory served with plenty of information, insights and through

an articulation that is characterised by a lucid style and scholarly rigour.

The Indian disciplinary framework has been sited in an open-ended epistemology that advocates "seeing and not-seeing, hearing and not-hearing", in that, 'truth' (of thought) and 'truthfulness' (of speech) were not considered as independent and originary categories, but as dependent and correlated phenomena. Following this epistemological construct, Kapoor elucidates various theoretical developments in the arena of Indian literary theory. He puts the analysis in perspective in tracing the historical tradition(s) through commentaries on source texts by scholars, who have been instrumental in the development of this tradition. The work seeks to organise the discussion around contemporary theoretical debates in the light of Indian literary theory looking at critical assumptions regarding literary theory in general, creative process and creativity, literature as a verbal discourse, literature as ontology and epistemology etc. The analysis drives home the fact that in India the critical apparatuses have been over refined in course of time, however plurality of critical apparatuses has been in practice. Although attempts have been made to synthesise, like Rajsekhar's composite model, it is not in essence synthetic rather a model that mediates between/among different literary postulates to re-signify inter-connectedness of theories. This coexistence has been a method of negotiation in which critical theory obtains to disciplinary transgression. Kapoor also

*Reader and Head, Department of English, North Eastern Hill University (NEHU), Tura Campus, Tura-794 002 (Meghalaya).

contextualises the interdisciplinary mediations, in the context of rational discourses, to suggest that the Indian tradition is opaque and pursues transcendence in an effort to understand the whole which is not objectively available through categories, systems, sub-systems, and sub-sub-systems.

The work is divided into six chapters including an exhaustive background chapter. The Indian critical tradition is re-looked in order to underline the relationship between language and reality, deconstructing the author, authorial meaning and plurality of the interpretative mode. Kapoor maintains: "The Indian intellectual tradition is language-centred. The *sabda* is crucial, and care is taken in all texts to define the terms as precisely as possible" (p. 9) and again, "The tradition is oral — which means that the texts are constituted and communicated as oral texts, and an account of their relative opacity of expression and conventions of abbreviation/brevity make specific demands on the readers. Besides, the oral culture determines art forms, aesthetics, the participation in and the expectations of a theory" (p. 9). This understanding clearly states that "knowledge is not an end in itself..." (p. 10). The two major theoretical developments i.e. *Rasa* and *Dhvani* theories are discussed at length to underscore the fact that both theories are complimentary and are important for better understanding of literature. Indian literary theories are constitutive theories, in that, they are concerned with analysing how meaning is constructed through what devices of cognition and communication, and with what objectives of giving enjoyment to the *Sahridaya* or empathetic

reader. Kapoor suggests that inspite of the domination of these two schools, the Indian critical tradition has never been exclusive. It has been part of the Indian epistemology and philosophy that speech and thought are only two aspects of the same speech-principle. A sentence is to be considered as a single undivided utterance and its meaning an instantaneous flash of insight. Both the author and the reader became part of the text, (s)/he produces or reads. The emphasis was thus on what is aural, visual, aural-visual through which representations are worked out. What makes Kapoor's work significant is its

objectivity, comprehension and readability. In the work, Kapoor has offered adequate translations of Sanskrit words, idioms, expressions and for the benefit of readers not well conversant in Sanskrit, an exhaustive glossary is appended to the text by Nalini M. Ratnam. Kapoor's efforts are salutary, and the book's publication is very timely. The book is a valuable contribution to the field of critical theory and a must read for those who are interested in the Indian classical literary tradition. The work cautions the reader against any kind of "exclusive exocentrism" — to say "what does he know who does not know himself?" (P. XII). □



INSDOC

INDIAN NATIONAL SCIENTIFIC DOCUMENTATION CENTRE

17, C-1, Sector 17, Institutional Area, Gurgaon, Haryana - 122 002

ADVERTISEMENT NO ETTG 1/2000

INFORMATION SCIENCE COURSES

1. ASSOCIATESHIP IN INFORMATION SCIENCE 2000-02 (a two year course equivalent to Master's degree in Library & Information Science recognised by Govt. of India & many Universities)

Applications are invited for the Millennium Batch of the course commencing on September 20, 2000.

Eligibility: A minimum of 50% aggregate marks in Master's degree, or four-year plus degree like B.E./M.B.B.S. or Bachelor's degree and B Lib. Sc. with one year of relevant experience.

Selection: Twenty-five candidates based on Admission Test (June 14, 2000) and Interview (middle of July, 2000).

Test & Interview Centres: New Delhi, Calcutta, Bangalore and Mumbai.

Scholarship: A limited number of scholarships are available for non-sponsored, but meritorious students.

How to apply: The prospectus and the application form can be obtained from Assoc. Head, ETTG by sending a self addressed envelope (25cm x 20 cm size) affixing Rs.15/- postage stamps and enclosing a DD for Rs.100/- drawn in favour of the Director, INSDOC, payable at New Delhi starting from April 26, 2000.

Last date for submission of completed applications: May 26, 2000

2. SHORT-TERM COURSES DURING 2000-01

Topics: Computer Application to Library and Information Activities, Information networks, WINISIS, Bibliometrics, Electronic Publishing, Bar code Technology, E-Commerce Fundamentals, Library Automation and Resource Sharing, Internet Access and Online Information Retrieval, Windows, MS Office 97 and Internet, Visual FoxPro and MS Access, Visual Basic and MS Access.

For details write to: Assoc. Head, ETTG, INSDOC, 14 Satsang Vihar Marg, New Delhi-110067 (Tel. 011-686 3521) or SIC, INSDOC Regional Centre, CSIR Complex, Taramani, Chennai - 600 113 (Tel.044-235 1453).

Visit us to <http://www.insdoc.org>

Teachers and Declining Standards

I have carefully gone through the article entitled "Declining Standard of Higher Education" by Sukhdev Singh and S.K. Mehta which appeared in 'University News' of 27th December, 1999. I have really enjoyed reading the article which I found very interesting and educative. However, I have noticed for the first time during my career that a teacher, inter-alia, determines a teacher responsible for the deterioration of the present standard of higher education. He has rightly pointed out the erosion of ethical values and moral standards of the people of his fraternity/society, non-recognition of talent, economic, social, psychological and political factors and on the top of these the unionism at different levels. It is a fact that the Constitution of India under Article 19(c) provides a right to all citizens of the country to form 'Associations' or 'Unions'. The teaching fraternity has not done anything wrong in having formed 'Associations' in all the universities of the country. It is their fundamental right, like all fellow citizens who too have formed the 'Unions' or 'Associations'. An important thing which Sukhdev Singh, while formulating his conclusions and giving suggestions thereto, has forgotten is closely related to the harmful act of the learned teaching community to their own profession when it is viewed in the context of using 'Unions' for their personal gains. It is well known that the politicians do touch their feet even today as well in their capacities as their

taughts. Unfortunately, the teaching fraternity has also started using the similar exercise of touching their feet for acquiring senior administrative positions in the higher education system. Most of the teachers in our university system keep on running for acquiring the posts of Deputy Registrars, Registrars, Controllers of Examinations, Directors of Youth Welfare, Sports, Students Welfare, Deans of Academic Affairs, Provosts, Wardens of Hostels and on the top of these as Pro-Vice-Chancellors or the Vice-Chancellors of the universities. While running after these positions they cease to do their basic job of either teaching or research or evaluation or re-evaluation. Some of them do succeed in getting these positions through the politicians and a few others also reach the highest ladder of higher education of this Country. Sukhdev Singh has also ignored the fact that the teaching fraternity has become too ambitious to acquire wealth through tuitions. Such teachers have absolutely forgotten both ethical and moral values by skipping their basic duties of formal classrooms for which they are earning good salaries from the institutions wherever they are posted either in the colleges or for that matter in universities or deemed universities. Their lust for power does not even end after their formal superannuation because some of them do occupy senior administrative positions after retirement, which perhaps they should vacate for their taughts. Perhaps time has come

for fixing an age-bar for the politicians also.

I am of the considered opinion that instead of running after these administrative positions, the intelligentsia should concentrate on their basic duties of teaching or research only. There are innumerable examples of this country where IAS cadre personnel have outstandingly performed their duties as Vice-Chancellors rather than the teachers. Sometime back, the National Policy on Education-1986 also envisioned institution of "Indian Education Service" for filling up various administrative positions in a university system. The basic idea was to develop a proper management structure in the education system itself. The policy was approved by the Parliament. Unfortunately, one and a half decade has elapsed since this decision was taken yet this National Education Service has not been instituted till today.

P.S. Sahi

Controller of Examinations,
University of Jammu,
Jammu Tawi-180 004

The Bias of Competitive Tests

Please refer *University News* of 21st February, 2000, where P.V. Mathew's article 'The Bias of Competitive Tests' should be a point to ponder for all those who hold professional as well as academic entrance tests.

All academic examinations are not foolproof ! Why? Besides,

a third class graduate in any discipline who studied in English medium throughout cannot be equated with a first class graduate in any discipline where English is only a compulsory subject! All academic entrance tests are either in English or in Hindi medium whereas majority of the students study in their mother tongue.

So, Mathew is right when he says 'Proficiency tests biased towards the disadvantaged section of the testees population, those who have been deprived of the benefits of a good education because they were socially, economically or culturally backward.' This is because our school/college trustees and education policy framers themselves are ignorant of the whole process of expected educational standards of our up-coming generations and here neither HRD, NCTE nor UGC have adopted concrete measures for maintenance of effective overall educational standards in urban, rural and mofussil areas. In my opinion HRD, NCTE and UGC should jointly organise a strong movement to standardise our high school and university education with least interference of educationally ignorant school/college administration and politicians ignorant of educational achievement standards. Gyan Prakash and Meenu Srivastava (Mismatch Between Education and Employment, University News, 21st Feb, 2000) are right in their nine suggestions but who will bring these reforms into action? Can anyone give concrete reply to this problem?

Arvind P. Dave
6, Lake View Plot,
Maharshi Dayanand Marg,
Dhrangadhra-363 310 (Gujarat)

Grant for Short Term Visit to Overseas University/Institution under the World Bank Aided India Capacity Building Project.

Applications are invited from suitable candidates for being considered for grants for research project related short-term visit to overseas University/Institution for the financial year 2000-2001. The objective of the grant is to strengthen research capabilities and encourage quality work in India in Environmental Economics through interactions with scholars at overseas universities/institutions, and establishing collaborative research relationships with them. Grants are for a period not exceeding 2 calendar months.

Eligibility :

- (i) Indian citizens who have M.A. degree in Economics
- (ii) Candidates who are holding positions in academic institutions/universities and working on a research project which has substantial component of environmental economics; or students who are registered for Ph.D. degree in economics in academic institutions/universities, are working in the area of Environmental Economics and have two years of research experience as a Ph.D. Scholar, or students who have completed one year of course work and have undertaken courses in environmental economics at the M.Phil level, and are writing their M.Phil dissertation in the area of environmental economics.
- (iii) The maximum age for eligibility is 50 years
- (iv) Proposed overseas visit should be fully justified giving sound reasons why it is necessary for the purpose of the research project.

Short Term Grant includes personal subsistence allowance for the duration of the grant and one round trip economy class/excursion airfare by the shortest route from the place of residence in India to overseas host institution.

Applications with complete details about academic background, employment, age, details of work done in Environmental economics, details of the research project highlighting the work done so far along with a letter of consent from the host university/institution where the grant is to be utilised should be sent to the Member Secretary EEOFC, on or before May 15, 2000 at the address given below. Applicants bear full responsibility for ensuring that all materials are received by the due dates and will not be notified of incomplete applications EEOFC's decision in respect of award of grant will be final.

**National Institute of Public Finance & Policy, 18/2, Satsang Vihar Marg,
Special Institutional Area, Near JNU, New Delhi-110 067.**

THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities (January-February, 2000)

SOCIAL SCIENCES

Commerce

1. Adil, Asgher Ali. Islamic darshan mein vanijya sambandhi chintan: Ek vishleshanaत्मक अध्याय. (Dr Mangal Yashvant Mishra), Department of Commerce, Devi Ahilya Vishwavidyalaya, Indore.

2. Bajracharya, Dinesh Lal. Regulation of unfair advertising in India and Nepal. (Prof D P S Verma), Department of Commerce, University of Delhi, Delhi.

3. Cheemadan, Yakoob. A study on the impact of the Consumer Protection Act, 1986 on consumer movements with special reference to Northern Districts of Kerala. (Dr E P Sainul Abideen), Department of Commerce and Management Studies, University of Calicut, Calicut.

4. Das, Samantak. Housing finance in India: A study with special reference to the role of housing finance companies. (Dr Swapan Kumar Biswas), Department of Commerce, University of Burdwan, Burdwan.

5. Ghosh Roy, H J. Productivity and practices in health care organisation: An exploration, analysis and implementation. (Prof Ravinder Vinayak), Department of Commerce, Maharshi Dayanand University, Rohtak.

6. Hanspal, Savita. Life styles of the middle-class in Delhi: Implications for marketing strategies. (Prof D P S Verma), Department of Commerce, University of Delhi, Delhi.

7. Mahesh Kumar. Consumer disputes redressal forums in Haryana: An appraisal of their working. (Prof Ravinder Vinayak), Department of Commerce, Maharshi Dayanand University, Rohtak.

8. Rajpal. Role of banking institutions in rural development: An evaluation. (Dr Narendra Kumar), Department of Commerce, Maharshi Dayanand University, Rohtak.

9. Sarkar, Ranjit Kumar. Studies on socio-economic impact of Operation Parga in the District of Birbhum. (Sri Joydeb Sarkhel), Department of Commerce, University of Burdwan, Burdwan.

10. Sharma, Major Hanuman. An evaluation of worker's participation in management: A case study of selected organisation. (Dr Mohd Mustafa), Department of Commerce, Jamia Millia Islamia, New Delhi.

Economics

1. Angara, Parvathi Bai. Determinants of malnutrition in pre-school children in Goa. (Prof P V Sarma), Department of Economics, Andhra University, Waltair.

2. Bhat, Reva. Gatt and the trade problems of less developed countries, 1970-1990. (Prof O P Kotwal), Department of Economics, University of Jammu, Jammu.

3. Datta, Santosh Kumar. A study of the interlinkage in the agriculture of West Bengal. (Sri Asit Kumar Banerjee and Prof Manas Ranjan Gupta), Department of Economics, University of Burdwan, Burdwan.

4. Hghe, Solomon Nwcke. Impact of World Bank projects on small scale sector development in Nigeria. (Prof A R Rizvi), Department of Economics, Jamia Millia Islamia, New Delhi.

5. Joseph, J John. A study into the changing profile of Sirumalai Forest Hills, Dindigul District, Tamil Nadu and an eco-friendly restoration plan. Department of Economics, Gandhigram Rural Institute, Gandhigram.

6. Kannan Nair, N. Khadi and village industries in Dindigul District: A study of financial performance. Department of Economics, Gandhigram Rural Institute, Gandhigram.

7. Margasagayam, N. A study of organic farming in Tamil Nadu. Department of Futurology, Gandhigram Rural Institute, Gandhigram.

8. Patil, Manunath Mallanagouda. Job oriented courses: An economic analysis. (Prof Y L Inamdar), Department of Economics, Karnatak University, Dharwad.

9. Rafiquz Zaman. A critical evaluation study of jhum, shifting cultivation control programme in hill areas of Assam with special reference to application of science and technology input. (Dr J K Gogoi), Department of Economics, Dibrugarh University, Dibrugarh.

10. Raja Mohan, S. An appraisal of consumers' protection measures in Tamil Nadu. Department of Cooperation, Gandhigram Rural Institute, Gandhigram.

11. Sankaranarayanan, R. A study on the problems of overdue and recovery management in Pandyan Grama Bank in Tamil Nadu. Department of Economics, Gandhigram Rural Institute, Gandhigram.

12. Shunmugam, M A. A critical study on sustainable cotton farming and its technology transfer process in Tamil Nadu. Department of Economics, Gandhigram Rural Institute, Gandhigram.

13. Sundaran, S S Meenakshi. A research proposal to study the suitability of Panchayati Raj institutions as principal delivery mechanism for economic development in the state of Karnataka. (Dr A R Bilgrami), Department of Economics, Jamia Millia Islamia, New Delhi.

Education

1. Bali, Harinder. A study into the learning styles of high and low achievers at the secondary stage of Education. (Prof Girija Mohd Miyan), Department of Education, Jamia Millia Islamia, New Delhi.

2. Khagendra Kumar. A status survey of a people's science movement in India. (Prof Devendra Joshi and Prof H R Kidwai), Department of Education, Jamia Millia Islamia, New Delhi.

3. Meghani, Ami Mastan. A study of effectiveness of a teaching learning strategy to develop critical thinking in students of Std XI using Psychology as content. Department of Education, Maharaja Sayajirao University of Baroda, Vadodara.

4. Rajropmar, Soomanti. An investigation into the efficacy of guided learning as compared with traditional methods of teaching Chemistry in Mauritian secondary schools. (Dr Phool Kaul), Department of Education, Jamia Millia Islamia, New Delhi.

5. Sanyal, Swati. A study of the effectiveness of intervention strategy for visually handicapped children with learning difficulties. (Dr Kusum Sharma and Mr Lal Adwani), Department of Education, Jamia Millia Islamia, New Delhi.

6. Tahiliani, Hemant. The effectiveness of a remedial reading programme for the learning disabled and normal children. (Dr Kusum Sharma and Prof R P Srivastava), Department of Education, Jamia Millia Islamia, New Delhi.

Library & Information Science

1. Tiwari, Ramkirtan. Bhartiya rajyon ke pustakalaya adhiniyamen ka adhyayan : Madhya Pradesh mein Pustakalaya Adhiniyam ke anivaryata evam bhavishya. (Dr Brajesh Tiwari), Department of Library and Information Science, Guru Ghasidas Vishwavidyalaya, Bilaspur.

Management

1. Agarwal, Sushil Kumar. Business excellence model in Indian context : A select study. (Prof Prem Vrat and Dr S Karunes), Department of Management, Indian Institute of Technology Delhi, New Delhi.

2. Bishwamitra Singh. Marketing strategies for SSI products in Madhya Pradesh. (Dr R D Pathak), Department of Management, Devi Ahilya Vishwavidyalaya, Indore.

3. Karnik, V S. Study of performance system of officers in the Indian Army. (Dr R D Pathak), Department of Management, Devi Ahilya Vishwavidyalaya, Indore.

4. Khan, Shahid Mohammed. Financial management of small scale industries : A comparative study of Bhopal and Indore Districts. (Dr A P Singh), Department of Applied Economics and Business Management, Barkatullah Vishwavidyalaya, Bhopal.

5. Mukherjee, Goutam Kumar. Estimation of demand and marketable surplus of fluid milk in different districts of W B and development of strategy to fill up the gap. (Dr Dilip Roy), Department of Business Administration, University of Burdwan, Burdwan.

6. Rajendra Singh. Employee's attitude towards Total Quality Management and Human Resource Development practices in printing industries. (Dr R D Pathak, Dr Kamlesh Sharma and Dr Deepak Koul), Department of Management, Devi Ahilya Vishwavidyalaya, Indore.

Military Studies

1. Tyagi, Kailash. Indo-American relationship with special reference to India's security, 1980-1990. Department of Military Science, Barkatullah Vishwavidyalaya, Bhopal.

Political Science

1. Anjalah, M. Pressure group politics : A study of students organisations in Andhra Pradesh since 70s. (Prof B Venkateswarlu), Department of Political Science, Kakatiya University, Warangal.

2. Arif, Najmul. Environment related mass-movements in India : A study of the agitation over Narmada. (Prof S J R Bilgrami), Department of Political Science, Jamia Millia Islamia, New Delhi.

3. Dutta, Sanchita. CPI's attitude towards the Congress, 1967-1975. (Prof Z A Nizami), Department of Political Science, Jamia Millia Islamia, New Delhi.

4. George, Jessy. Union state relations in federal set-up : The Indian experience. (Prof Z A Nizami), Department of Political Science, Jamia Millia Islamia, New Delhi.

5. James, Winnie. Constitutional amendments regarding socio-economic transformation in India and their impact, 1971-1991 : An assessment. (Dr Nusrat Bano Ruhi), Department of Political Science, Barkatullah Vishwavidyalaya, Bhopal.

6. Mishra, Rashmi. Mahatma Gandhi ke arthik vicharon ka alochanatmak mulyankan : Ek sukhma parikshan. (Dr G M Khare), Department of Political Science, Barkatullah Vishwavidyalaya, Bhopal.

7. Narasimhulu, Danda. Telugu Desam Party Government rule in Andhra Pradesh : An evaluation. (Prof Z A Nizami), Department of Political Science, Jamia Millia Islamia, New Delhi.

8. Saraswathamma, N. Annie Besant : A study of political ideas. (Dr A G Naidu), Department of Political Science, Sri Krishnadevaraya University, Anantapur.

9. Venkata Naidu, G. Organisation and management of distance education programmes under Dr B R Ambedkar Open University, Andhra Pradesh : A selective study. (Dr P W Purushotham), Department of Public Administration, Sri Krishnadevaraya University, Anantapur.

Psychology

1. Bhalia, Lakhman Ghusabhai. Hindu and Muslim man mahila/pratyenu manovalan and temana dampaty samayojanno tulanatmak abhayas. (Dr N H Kamdar), Department of Psychology, Bhavnagar University, Bhavnagar.

2. Gour, Vandana. Pratyaksh parivarik vatavaran ke sandarb mein kishoron ka samayojan. (Prof O P Mishra), Department of Psychology, Gurukula Kangri Vishwavidyalaya, Haridwar.

3. Kotnala, Anuradha. Prolonged deprivation among Garhwali women and personality correlates. (Prof O P Mishra), Department of Psychology, Gurukula Kangri Vishwavidyalaya, Haridwar.

4. Naqvi, Tameez Fatima. Moral values and modernization : A study of generation gap in Muslims and Hindus. (Dr N Hasnain), Department of Psychology, Jamia Millia Islamia, New Delhi.

5. Narang, Rajni. Efficiency under total productive maintenance and Indian work culture. (Dr Promila Batra), Department of Psychology, Maharshi Dayanand University, Rohtak.

6. Pandey, Poonam. Stress strain and personality pattern of Kumauni women. (Prof O P Mishra), Department of Psychology, Gurukula Kangri Vishwavidyalaya, Haridwar.

7. Rai, Vinita. A study of role stress in relation to personality, motivation and mental health of Railway employees. (Dr S K Shrivastava), Department of Psychology, Gurukula Kangri Vishwavidyalaya, Haridwar.

8. Saxena, Bhavana. Study of psychological correlates of diabetes. (Prof O P Mishra), Department of Psychology, Gurukula Kangri Vishwavidyalaya, Haridwar.

9. Sharma, Ashutosh. Community response to inner city housing environment. (Dr Dinesh Nagar), Department of Psychology, Barkatullah Vishwavidyalaya, Bhopal.

Social Work

1. Bhatia, Namita. Marital discord : Modes of settlement with special reference to family courts in India. (Prof H Y Siddiqi), Department of Social Work, Jamia Millia Islamia, New Delhi.

Sociology

1. Gopalakrishnan, B K. Institutional farm credit recovery issues in Tiruchirappalli District, 1990-91 to 1994-95 : A multi dimensional analysis. Department of Sociology, Gandhigram Rural Institute, Gandhigram.

2. Rogi, Sundar Rayappa. Beedi workers in Karnataka : A sociological study. (Dr Anil G Mudbidri), Department of Sociology, Karnatak University, Dharwad.



VASANTDADA SUGAR INSTITUTE

Manjari (Bk)., Dt. Pune-412 307

Phone No : 6993988, 6993989, 6993994, 6993995
 Fax No. : 020-6992735
 E-mail : vsilib@vsnl.net.in

VSI provides an excellent opportunity to the Science and Engineering graduates and diploma holders for the development of their career in sugar and allied industries through the following Post Graduate Diploma and Certificate courses.

*POST GRADUATE DIPLOMA :

1. Sugar Technology	2 1/2 years	: B.Sc. with Phy., Chem., Maths or B.E. (Chem. Engg.)
2. Sugar Instrumentation Technology	: 1 1/2 years	: B.Sc. with Phy., Chem., Maths. or Electronics or Graduate in Engineering
3. Industrial Fermentation & Alcohol Technology	: 1 1/2 years	: B.Sc. with Chem./Microbiology or B.E. (Chem. Engg.)
4. Sugar Engineering Diploma	: 1 1/2 years	B.E. (Mech./Elect./Chem.)
5. Pulp & Paper Technology	2 years	: B.Sc. with Phy., Chem., Maths.
6. Environmental Science	2 years	: B.Sc./B.Sc. (Agn.)/B.E.

*CERTIFICATE PROGRAMME :

1. Sugar Engineering	: 1 year	: Diploma in Mech./Elect./Chem. Engg.
2. Sugar Boiling	: 6 months	: S.S.C. with min. 2 years experience in sugar factory.
3. Juice Supervision	: 6 months	: S.S.C. with min. 2 years experience in sugar factory.

For full details and application forms please refer to the Prospectus 2000-2001, copies of which can be obtained from REGISTRAR OFFICE on payment of Rs. 150.00 in person or by demand draft favouring VASANTDADA SUGAR INSTITUTE payable at Pune.

LAST DATE FOR THE RECEIPT OF COMPLETED APPLICATION FORMS — 10/6/2000

P.L. Kulkarni
REGISTRAR

SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

BANGALORE-562 157

Sir M. VIT is named after Barath Ratna Sir M. Visvesvaraya, a great Engineer statesman and an able administrator and was started in the year 1986 by a group of philanthropists belonging to Raju Kshatriya community under the Banner of "Sri Krishnadevaraya Educational Trust".

The Institute is situated on Bangalore-Hyderabad National Highway at a distance of about 21 Km from the city of Bangalore. The College is located in a spacious campus of about 135 acres, having green, clean and peaceful atmosphere conducive to learning. The College runs the following courses which are affiliated to either Visveswaraiiah Technological University OR Bangalore University.

Course	Intake	Course	Intake
1. B.E. (Civil)	: 30	5. B.E. (Electl. & Elns)	: 60
2. B.E. (Mech)	: 90	6. B.E. (CSE)	: 60
3. B.E. (IE & M)	: 30	7. B.E. (IS & T)	: 30
4. B.E. (Elms. & Commn)	: 90	8. MCA	: 30
5. B.E. (Telecom)	: 40		
		Total	: 460

The Institute has TWO Boys' Hostels and ONE Girls' Hostel. Subsidized Transport facilities are provided for the students to commute from various parts of the city. The Institute offers various incentives for meritorious students in the way of Full Freeship, Half-Freeship, Prizes and additional Laboratory facilities etc. It has well equipped Library which is provided with both E-Mail and Internet Facilities. The campus has 24 Hours Water Supply and Electrical Supply provided by Bore-Well and Diesel Generator Sets.

The College has a Training and Placement Centre, ISTE Chapter, Canteen, Bank Facilities and also provides Medical Care to the students and Staff. The Institute has an excellent Sports Complex, which provides both Indoor and Outdoor Game Facilities. It is shortly going to be placed on Web Site.

For further information contact :

Honorary Secretary,
 Sri Krishnadevaraya Educational Trust,
 Bangalore Palace,
 Bangalore-52
 Phone : 080-3343442/3343448/3441200
 Telefax : 080-3343448

The Principal,
 Sir M. Visvesvaraya Institute of Technology,
 Bangalore-562 157

Phone : 8467248
 Fax No. : 080-8467081

CLASSIFIED ADVERTISEMENTS

THE UNIVERSITY OF BURDWAN

RAJBATI : BURDWAN, WEST BENGAL

Advertisement No. 23/99-2000

Dated, 13th March, 2000

Applications in the prescribed forms are invited from the Indian Citizen for the following posts of teachers of the University.

1. Professor of Library & Information Science — One post
2. Professor of Law — One post
3. Reader in Commerce — One post
4. Reader in Botany — One post
5. Reader in History — Two posts
6. Reader in Chemistry — One post
7. Lecturer in Physics (other post reserved for ST) — Two posts
8. Lecturer in Environmental Science (Reserved for S.C.) — One post
9. Lecturer in Commerce — Two posts
10. Lecturer in Mathematics (Applied and Pure) (One post reserved for SC) — Two posts
11. Lecturer in Philosophy — Two posts
12. Lecturer in Statistics — One post
13. Guest Lecturer in Statistics — Few posts
14. Professor of Zoology — One post
15. Reader in Mathematics (Pure) — One post
16. Lecturer in Law (Lien bound) — One post

Scales of Pay : In respect of posts (1) to (16) — as prescribed by the U.G.C. (revised scales) PLUS dearness and other admissible allowances and pensionary benefits according to the University Rules. For posts of Guest Lecturer — Rs. 100/- per lecture hour & two lecture per week.

MINIMUM QUALIFICATIONS AND EXPERIENCE :

For posts (1) to (16) — as per latest UGC Guidelines. For the posts of Lecturer (i.e., 7 to 12 & 16) — NET/SLET will be a Desirable and not Essential qualification for applicants with Ph.D. Degrees. For post (3) and for one of the (9) : In addition to other UGC qualification stipulations, Master's Degree or two year post-graduate Diploma in Personnel Management & Industrial Relations/Human Resource Management or Master's Degree in Commerce or Business Administration with specialisation in Personnel Management/Human Resource Management/With Degree in Law with special knowledge in Labour Laws.

Specialisation : For post (1) Open, For (2) Open, any branch of Law, For post (4) Research

experience in the field of Genetics and Plant Breeding/Cytogenetics/Ecology. For post (5) : One post Ancient Indian History and other post Modern History with ability to teach history of the USA/Africa. For post (6) Candidates with Nuclear-Analytical/Nuclear/Analytical special are only eligible to apply For post (7) : One post Open and other post Nuclear Physics and Ph.D. or equivalent research experience in Experimental Nuclear Physics. For Post (8) M.Sc. in Chemistry with experience in Environmental Science or M.Sc. in Environmental Science. For post (9) Any branch of Commerce including Human Resource Management. For post (10) Numerical Methods and Computer Science. In addition to theoretical classes, the incumbent will have to take charge of the Computer-aided Numerical Laboratory and conduct Numerical Practical classes and other post in Algebra, as evidenced by current publications in the field. For post (11) Any branch of Western Philosophy and other post Indian Philosophy-Nyaya/Vedanta. For post (12) Any branch of Statistics.

Desirable : Ability to teach computer programming and computer based statistical computing. For post (13) Any branch of Statistics. For post (14) Fish and Fisheries/Reproductive Physiology/Developmental Biology/Environmental Biology/Entomology/Parasitology/Cytology, Molecular Genetics and Biotechnology. For post (15) Any branch of Pure Mathematics, For post (16) Any branch of the subject

One self-addressed (27x12 cms) envelope must be enclosed. Xerox copies (5 sets) of all the testimonials duly attested in support of age, qualifications and Caste Certificate (For SC/ST) and no objection Certificates must be enclosed. Incomplete applications and/or application received on plain paper and/or after the due date will not be entertained in any case. Candidates called for interview will bear their own expenses for appearing at the same. Prescribed application forms may be obtained from Rajbati, University of Burdwan personally on payment of Rs. 50/- in cash at the University Cash/Sales Counter from 11 a.m. to 1.30 p.m. on working days (except 2nd and 4th Saturdays) or by sending a self addressed stamped (Rs. 4.00) envelope (11"x9") accompanied by crossed I.P.O. of Rs. 50/- drawn in favour of the Finance Officer, University of Burdwan. Applications completed in all respects be submitted to the Registrar, University of Burdwan, Burdwan-713 104 with requisite fee of Rs. 25/- payable to the University Cash Counter on or before 15 April, 2000.

N.B. : Relaxation of Age and application fees for the SC/ST candidates : Age — by 5

years. Fees — 50% of the application fee i.e., Rs. 25/-.

GOA VIDYAPRASARAK MANDAL'S COLLEGE OF EDUCATION

FARMAGUDI, PONDA-GOIA-403 401

Applications with full bio-data are invited for the following posts so as to reach the Principal within 15 (fifteen) days from the date of publication of this advertisement. Applications must be accompanied by certified copies of marksheets of all examinations from S.S.C. onwards. Those already employed shall forward their applications through proper channel.

Category of the post : Open

Full Time Lecturer in Education (Methodology of teaching Geography) — 1 Post

Full Time Lecturer in Education (Methodology of teaching Languages/Social Science) — 1 Post

Full Time Lecturer in Education (Methodology of teaching Marathi) — 1 Post

Category of the post : Reserved

Full Time Lecturer in Education (Methodology of teaching Hindi) — 1 Post (SC) (Advertised for the 6th time and only SC candidates need to apply)

Full Time Lecturer in Education (Methodology of teaching Konkani) — 1 Post (OBC) (Advertised for the 2nd time and only OBC candidates need to apply)

Qualifications : Candidates applying for the above posts must be citizens of India and should have Master's degree in the relevant subject (i.e. Education) with at least 55% marks or its equivalent grade and good academic record as prescribed by U.G.C. They should also have passed the Eligibility Test for Lecturership conducted by the U.G.C. or a similar test accredited by the U.G.C. However, if such candidates are not available or found not suitable, other candidates may be appointed on temporary basis for one year only as per Goa University rules.

Service Conditions

Scale of Pay : — U.G.C.

Terms and conditions of service are those laid down by Goa University, Directorate of Higher Education, Government of Goa and other competent authorities.

Louise Vernal
PRINCIPAL



INDIAN INSTITUTE OF TECHNOLOGY : DELHI

HAUZ KHAS, NEW DELHI-110 016

ADMISSION TO POST GRADUATE/PH.D. PROGRAMMES 2000-2001

- Ph.D. : Depts. :** App. Mech., Biochem. Eng. & Biotech., Chem. Eng., Chemistry, Civil Eng., Comp. Sc. & Eng., Elect. Eng., Hum. & Soc. Sc., Maths, Mech. Eng., Physics, Text. Tech.; **Centres :** App. Res. In Electronics, Atmos. Sc., Biomedical Engg., Energy Studies, Ind. Tribology Machine Dynamics & Maint. Eng., Instr. Design & Dev., Polymer Sc. & Eng., Rural Dev. & Tech.
- M.Tech. : Depts :** **App. Mech. :** (1) App. Mech., (2) Design Eng., **Chem. Eng. :** (1) Process Engg. & Design, **Chemistry :** (1) Modern methods of Chem. Analysis, **Civil :** (1) Build. Sc. & Constr. Management., (2) Envir. Eng., (3) Rock Mech., (4) Soil Mech. & Found. Eng., (5) Stru. Eng., (6) Water Resources, **Comp. Sc. & Eng. :** (1) Comp. Sc. & Eng., **Elect. Eng. :** (1) Comun. & Radar, (2) Comp. Tech., (3) Control & Instr., (4) Integ. Electro. & Circuits, (5) Power Electro., Elect. M/Cs & Drives, (6) Power Sys., **Mech. Eng. :** (1) Design of Mech. Equipt., (2) Industrial, (3) Production, (4) Thermal, **Physics :** (1) App. Optics, (2) Solid State Materials, **Text. Tech. :** (1) Fibre Sc. & Tech., (2) Text. Eng.
- Interdisciplinary M. Tech. :** (1) Comp. Appli., (2) Energy, (3) Ind. Tribology, (4) Instr. Tech., (5) Opto-Electro. & Optical Commun., (6) Polymer Sc. & Tech., (7) VLSI Design Tools & Tech.
- M.S. (Res.) :** (1) App. Mech., (2) Chem. Engg., (3) Biochem. Eng. & Biotech., (4) Comp. Sc. & Eng., (5) Elect. Eng., (6) Mech. Eng., (7) Civil Engg.

(Admission to Ph.D., M.Tech. & MS (R) can be on full time and part time basis, depending upon availability of seats.)

- M.Des. (4 Sem., Full time only) :** Indl. Design
- M.Sc. (4 Sem., Full time only) :** Chemistry, Maths, Physics

Financial Assistance available for full-time Ph.D./M.Tech./M.Des./M.S. (Res.) Students. 50% to 75% tuition fee waiver for full time Ph.D. Scholars (except self financing scholars) and part-time Ph.D. Scholars belonging to Govt organisations/institutions.

7 Special Part-Time (Evening) M.Tech. Programme in Energy and Environmental Management, (*)

Eligibility : A CGPA of 6.75 (6.25 for SC/ST) on a 10 point scale or equivalent or 60% marks (55% for SC/ST) in aggregate (of all the years/semesters of the qualifying examination). A relaxation in CGPA/marks to 6.25 (55%) is also available to those with MA degree in English, for admission to Ph.D. in English. For admission to Full-time Ph.D./M.Tech./M.S. (R) programme, the GATE percentile of a candidate wherever required should not be lower than the minimum prescribed viz. 75 Percentile for General and 50 Percentile for SC/ST Candidate(s). For sponsored/Part Time candidates the minimum experience required as on 1.8.2000 is 2 years for Ph.D. and 1 year for M Tech./M.S. (R). For details please refer to Information Brochure.

Direct Admission to M.Tech./M.S.(R) Programme (Full-Time) :

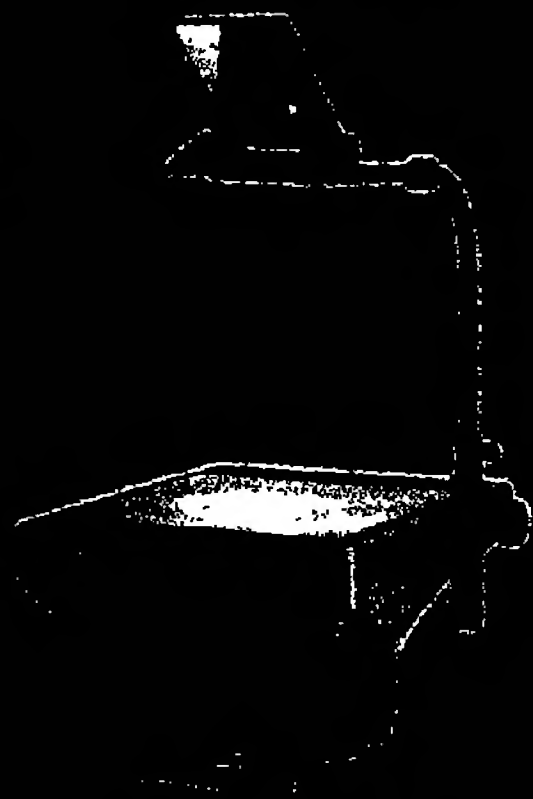
Depending upon decision of the individual Deptts./Centres some seats can be filled by Self-supporting candidates fulfilling the admission criteria without test/interview. For details please refer to Information Brochure.

(*) This M.Tech. Evening programme is available for candidates employed, atleast for one year, in R&D Organisations, Public Sector Undertakings, Govt. Departments or Private Industries. For details, please refer to Information Brochure.

For Application Forms & Information Brochure : Send a crossed Draft of Rs. 300.00 (Rs. 150.00 for SC/ST) in favour of Registrar, IIT Delhi payable at SBI, IIT Delhi, and a self addressed envelope (25 cm x 20 cm) with postage stamps for Rs. 12/- and superscribed "Application for Admission to prog." to Asstt. Registrar (PGS&R) IIT, Delhi-110 016. Forms can also be had personally against Bank Draft from Room No. AD-229 of the Institute or from SBI, IIT Delhi on cash payment of Rs. 305/- (Rs. 155/- for SC/ST). Separate form should be submitted for each Deptt./Centre/Interdis. Prog.

Issue of Form Commences on	:	13.3.2000
Last date for issue of forms	By post	: 13.4.2000
	In person	: 20.4.2000
Last date for receipt of completed form	:	20.4.2000

THE SHAPE OF PRESENTATIONS TO COME



INTRODUCING PHIL METEOR OHP

- Unique Design
- High Lumen Output
- Durable
- Occupies Less Table Space
- Light Weight and Compact
- Low Power Consumption
- Affordable Price

FREE
ON THE SPOT OF MAKING A
TRIAL PRESENTATION
Write / Fax with name
& address
for a FREE booklet
today!

PHIL's Complete Range of Presentation Solutions

OHPs

PHOTOPHONE D & T

- D - single lamp;
- T - double lamp
- Daylight halogen lamps
- Improved cooling
- Voltage surge protection
- Sturdy build



GALAXY 2000

- High lumen output
- Edge to edge sharp image
- LCD panel compatibility
- Sleek and aesthetic
- Light weight, easily portable



35mm Slide & LCD Projectors

35AF

- Bright, clear images
- Auto focus
- Rugged and sturdy
- Adaptable to linear and circular trays



PHIL MULTIMEDIA LCD PROJECTOR

- Brightest portable multimedia LCD Projector
- 600 ANSI lumens
- 16.7 million colours for photorealistic images
- Zoom and focus control
- Connects two computers and two video sources simultaneously



Digital Printers, Scanners & Copiers



POLAROID SPRINTSCAN 35 FILM SCANNER

- Scans 35mm slides and negatives
- High resolution of 2700 dpi
- Real time colour processing and sharpening
- Compact, light weight and portable



POLAROID HR 6000 SLIDE PRINTER

- Prints high resolution 35mm slides
- Edge to edge sharpness
- Compatible to PC and Mac



MINOLTA CS PRO SERIES COPIERS

- High copy quality
- High productivity
- Easy operation
- High reliability
- Simple Maintenance
- Environment friendly



POLAROID PROPALETTE 8000 FILM PRINTER

- Highest quality 35mm slides and negatives
- Auto brightness and colour balance control
- Compatibility for PC, Mac and UNIX
- Ideal for photo restoration

PHIL SYSTEMS LIMITED

HEAD OFFICE: Phil Systems Ltd., Phil Centre, Tivim Industrial Estate, Keraswada, Mapusa, Goa - 403 526

Tel: (0832) 255345, 255281, 255617, 255208. Fax: (0832) 255125, 255545. E-mail: psl.sales@phil.com.sg

AREA OFFICES: Ahmedabad: Tel/Fax: (079) 7470637 Bangalore: Tel: (080) 2255226 Fax: (080) 2283947 Calcutta: Tel: (033) 4633154 Fax: (033) 4646583 Chennai: Tel: (044) 8555742 Tel/Fax: (044) 8512013 Cochin: Tel/Fax: (0484) 383495, 384741 Delhi: Tel: (011) 6440093 Fax: (011) 6484436 Goa: Tel: (0832) 225268, 228605, 230936 Fax: (0832) 422521 Indore: Tel: (0731) 542166 Fax: (0731) 535885 Jaipur: Tel: (0141) 377881 Fax: (0141) 360690 Lucknow: Tel: (0522) 384028 Fax: (0522) 386646 Ludhiana: Tel/Fax: (0161) 429688 Mumbai: Tel: (022) 8590118-21, 8590125-27, 8520257 Fax: (022) 8523280, 8526362 Pondicherry: Tel/Fax: (0413) 224983 Secunderabad Tel/Fax: (040) 7841946, 7897852

AJ00 / PS / 201 / 01

Published by SUTINDER SINGH, on behalf of the Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi -2
Grams: ASINDU. Phones: 3230059, 3232429. Fax: 011-3232131 E-Mail: aiu@del2.vsnl.net.in Website: <http://www.aiuweb.org>

Printed by Tara Art Press, B-4, Hans Bhawan, B.S. Zafar Marg, New Delhi-110002. Tel. 3318626, 3319686